40410 Minnesota Pollution Control Agency Request for Comments on PFAS in Products Reporting and Fee Rule

Closed Dec 19, 2024 · Discussion · 23 Participants · 1 Topics · 23 Answers · 0 Replies · 1 Votes

23	1	23	0	1
PARTICIPANTS	TOPICS	ANSWERS	REPLIES	VOTES

SUMMARY OF TOPICS

SUBMIT A COMMENT

23 Answers · 0 Replies

Important: All comments will be made available to the public. Please only submit information that you wish to make available publicly. The Office of Administrative Hearings does not edit or delete submissions that include personal information. We reserve the right to remove any comments we deem offensive, intimidating, belligerent, harassing, or bullying, or that contain any other inappropriate or aggressive behavior without prior notification.

Steven Kooy · Citizen · (Postal Code: unknown) · Dec 05, 2024 6:58 am

0 Votes

Please see attached comment from the Business + Institutional Furniture Manufacturers Association.

Emi Yamamoto · Citizen · (Postal Code: unknown) · Dec 18, 2024 12:19 am

0 Votes

Please find attached comments on behalf of the Japanese electric and electronic industrial associations (JP4EE) - JEITA, CIAJ, JBMIA and JEMA.

Robert Denney · Citizen · (Postal Code: unknown) · Dec 18, 2024 8:40 am

0 Votes

Please see attached comments submitted on behalf of the PFAS Pharmaceutical Working Group.

Gary Cross · Citizen · (Postal Code: unknown) · Dec 18, 2024 9:25 am

0 Votes

Please see attached comments submitted on behalf of the Industrial Truck Association.

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Andrew Bemus · Citizen · (Postal Code: unknown) · Dec 18, 2024 11:41 am
0 Votes

Please see the attached comment letter submitted on behalf of the Sustainable PFAS Action Network (SPAN). Please contact SPAN with any questions or comments.

Chad Reece · Citizen · (Postal Code: unknown) · Dec 18, 2024 12:42 pm
0 Votes

Please see the attached comments submitted on behalf of Winnebago Industries.

Michael Pierce · Citizen · (Postal Code: unknown) · Dec 18, 2024 11:20 pm
0 Votes

Please see the attached comments submitted on behalf of the Window and Door Manufacturers Association.

Ian Choiniere · Citizen · (Postal Code: unknown) · Dec 19, 2024 8:30 am
0 Votes

Please see the attached comments submitted on behalf of Syensqo.

Judah Prero · Citizen · (Postal Code: unknown) · Dec 19, 2024 10:27 am
1 Votes

Please see the attached comments submitted on behalf of the Chemical Users Coalition.

Bill Erny · Citizen · (Postal Code: unknown) · Dec 19, 2024 10:52 am
0 Votes

Please see the attached comments submitted on behalf of the Recreational Vehicle Industry Association.

Daniel Mustico · Citizen · (Postal Code: unknown) · Dec 19, 2024 11:07 am
0 Votes

Please see attached comments of the Outdoor Power Equipment Institute.

Renee Keezer · Citizen · (Postal Code: unknown) · Dec 19, 2024 12:49 pm
0 Votes

Please see attached comments on behalf of the White Earth Band of Minnesota Chippewa Tribes

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Christopher Finarelli · Citizen · (Postal Code: unknown) · Dec 19, 2024 1:43 pm
0 Votes

Please find the attached comments on behalf of the Household & Commercial Products Association.

Warren Lehrenbaum · Citizen · (Postal Code: unknown) · Dec 19, 2024 1:45 pm
0 Votes

Please see the attached comments submitted on behalf of AGC Chemicals Americas ("AGCCA") and its parent company, AGC America, Inc.

Rob Turner · Citizen · (Postal Code: unknown) · Dec 19, 2024 1:48 pm
0 Votes

Attached please find comments on behalf of Valmet.

Ben Kallen · Citizen · (Postal Code: unknown) · Dec 19, 2024 2:00 pm
0 Votes

Please see attached comments from SEMI.

Daniel Moyer · Citizen · (Postal Code: unknown) · Dec 19, 2024 2:04 pm
0 Votes

Please see the attached comments on behalf of the Consumer Technology Association

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Theresa DiMarco · Citizen · (Postal Code: unknown) · Dec 19, 2024 2:23 pm
0 Votes

Please see attached comments on behalf of Marvin.

Mary Schilling · Citizen · (Postal Code: unknown) · Dec 19, 2024 2:57 pm
0 Votes

Please see attached comments on behalf of the Personal Care Products Council (PCPC). Thank you for your consideration.

Emily Sobel · Citizen · (Postal Code: unknown) · Dec 19, 2024 3:02 pm
0 Votes

MEMA, The Vehicle Suppliers Association respectfully submits the attached comments.

Nia Christoforakis · Citizen · (Postal Code: unknown) · Dec 19, 2024 3:13 pm
0 Votes

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Please see attached comments from EssilorLuxottica

Riaz Zaman · Citizen · (Postal Code: unknown) · Dec 19, 2024 3:14 pm

0 Votes

American Coatings Association - Please accept the attached supplemental comment from the American Coating Association.

Jesse McArdell · Citizen · (Postal Code: unknown) · Dec 19, 2024 4:08 pm

0 Votes

Please See the Attached Comments on behalf of the National Marine Manufacturers Association, the Marine Retailers Association of the Americas, and the Water Sports Industry Association.

BUSINESS + INSTITUTIONAL FURNITURE MANUFACTURERS ASSOCIATION
678 Front Avenue NW | Suite 150 | Grand Rapids, Michigan 49504-5368

BIFMA

Response to Request for Comments

To: Minnesota Pollution Control Agency

From: Steve Kooy

Date: December 5, 2024

Subject: Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

The Business Institutional Furniture Manufacturers Association (BIFMA) appreciates the opportunity to comment on PFAS reporting and related fees. BIFMA represents over 150 North American manufacturers and suppliers who provide the majority of contract furniture in the United States, Canada, and Mexico. We are proud of our long history of working with government entities to reduce or eliminate harmful chemicals via voluntary actions or in coordination with pragmatic legislation. In the case of PFAS, manufacturers continue to eliminate PFAS and have done so in textiles and other surface treatments.

In response to the request for comments, please consider the following:

Section 116.9407, subdivisions 2 language:

(a) *(3) the amount of each PFAS, identified by its chemical abstracts service registry number, in the product, reported as an exact quantity determined using commercially available analytical methods or as falling within a range approved for reporting purposes by the commissioner;*

BIFMA Comment: BIFMA recommends a range reported, given exact amounts are difficult to gather from suppliers. Suppliers consider this confidential business information. Chemical Abstract Service (CAS) registry numbers are also difficult to obtain without a nondisclosure agreement (NDA) signed by the manufacturer with the supplier. An executed NDA will not allow the information to be disclosed, especially in a publicly accessible database.

Analytical methods, whether commissioned by manufacturers or their suppliers, often provide false positives in the form of organic or inorganic fluorine. If a PFAS compound is intentionally added, it remains difficult and extremely costly to determine the specific chemical and exact concentration. Again, ranges are much more appropriate given the

measurement difficulties, potential errors, and variability of data (i.e. standard deviations) associated with laboratory analysis.

(b) *With the approval of the commissioner, a manufacturer may supply the information required in paragraph (a) for a category or type of product rather than for each individual product.*

BIFMA Comment: BIFMA supports the reporting option of a category or type of product versus SKU or product-specific identifiers. Due to variations in color, options, dimensions, etc., a furniture product (e.g. task seat) may have millions of variations and SKUs.

Minnesota Statute Chapter 116, Section 116.9407, subdivision 6., which states: "The commissioner may establish by rule a fee payable by a manufacturer to the commissioner upon submission of the information required under subdivision 2 to cover the agency's reasonable costs to implement this section. Fees collected under this subdivision must be deposited in an account in the environmental fund."

The MPCA is interpreting these information submittals ("reporting") to occur once, on or before January 1, 2026, and to not involve resubmittal of the same information. However, updates to reported products when PFAS are added or subtracted ("whenever there is a significant change") are required.

BIFMA Comment: BIFMA supports a one-time reasonable fee, versus an annual fee. BIFMA recommends a fee based on company size rather than products or SKUs reported. The fee, as stated, should be reasonable in nature. Reporting fees proposed in many other states should be considered as well given the reporting and the financial burden is growing quickly.

General BIFMA Comment: BIFMA and its members continue to encourage harmonization amongst all states seeking to report and remove PFAS. Businesses have limited resources; therefore more resources used to support individual state programs reduces opportunities to investigate PFAS-free alternatives.

On behalf of the industry members, we welcome the opportunity to work together further on this important issue. Please reach out to Steve Kooy, skooy@bifma.org, with any questions or further information.

Thank you,

Steve Kooy
Director of Health and Sustainability
BIFMA

2nd Comments on PFAS in Products Reporting and Fee Rule in Minnesota State

December 18, 2024

Name of the associations which make this input:

The Japanese electric and electronic industrial associations (JP4EE):

JEITA (Japan Electronics and Information Technology Industries Association)

CIAJ (Communications and Information Network Association of Japan)

JBMIA (Japan Business Machine and Information System Industries Association)

JEMA (Japan Electrical Manufacturers' Association)

Contact details of responsible person for this contribution:

Organization: Japan Electronics and Information Technology Industries Association (JEITA)
Name: Emi Yamamoto Function: Secretariat
Address: Ote Center Bldg., 1-1-3, Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan
E-Mail: emi.yamamoto@jeita.or.jp
Tel.: +81 3 5218 1054

The Japanese electric and electronic industrial associations, JEITA, CIAJ, JBMIA and JEMA (hereinafter JP4EE), hereby express gratitude to the Minnesota Pollution Control Agency (MPCA) for inviting comments on PFAS in products again.
https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-03.pdf

We are the manufacturers of electric and electronic equipment (hereinafter EEE) and have consistently supported the ambitious attempt to reduce the risk caused from the hazardous substances and taken practical measures for that.

In this spirit, we have carefully and conscientiously examined "REQUEST FOR COMMENTS on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (Previously R-4828 for PFAS in products: Reporting and R-4827", and would like to submit our additional comments and recommendations.
We would very much appreciate if you would give our comments your careful consideration.

(1) Our previous comments should be still active and taken into account.

We filed our comments to following Request for comments;

- "39507 Minnesota Pollution Control Agency Request for Comments on PFAS in Products Reporting Rule" in November 2023 (OAH Docket No. 65-9003-39507),
- "39506 Minnesota Pollution Control Agency Request for Comments on PFAS in Products Fee Rule" in November 2023 (OAH Docket No. 71-9003-39506), and

- "39667 Minnesota Pollution Control Agency Request for Comments on PFAS in Products Currently Unavoidable Use Rule" in February 2024 (OAH Docket No. 71-9003-39667).

While we do not submit them again, we believe and sincerely hope that the MPCA will continue to consider our previous comments as well as new ones in this time, carefully.

We provide additional comments below, reflecting the situation since our previous comments.

(2) Exemptions set by the Statutes on Products containing PFAS (MRSA §1614 (4)) in the State of Maine should be also exempted under PFAS legislations in Minnesota State.

After we submitted our previous comments in February 2024, MRSA §1614 (4) of Maine State Statutes on Products containing PFAS was revised and following items were added as exemptions. The same exemptions should be also added.:

K. A semiconductor, including semiconductors incorporated in electronic equipment, and equipment and materials used in the manufacture of semiconductors;

L. Nonconsumer electronics and nonconsumer laboratory equipment not ordinarily used for personal, family or household purposes; and

M. Equipment directly used in the manufacture or development of the products described in paragraphs E to L.

Please see the legal text at: https://legislature.maine.gov/statutes/38/title38sec1614.html

The same exemption should be introduced in "PFAS in Products Reporting and Fee Rule" as well.

Justification: If different states in the U.S. require to treat the same products differently, especially for those distributed in the U.S. wide and globally, such as EEE, it would hinder smooth product distribution to the detriment of Minnesota residents and retailers. At least, the exemptions set forth in Maine MRSA §1614 (4) should also be exempted in Minnesota.

(3) Consumer electronics should be also exempted in addition to exemptions under MRSA §1614(4) "Products containing PFAS" in the State of Maine

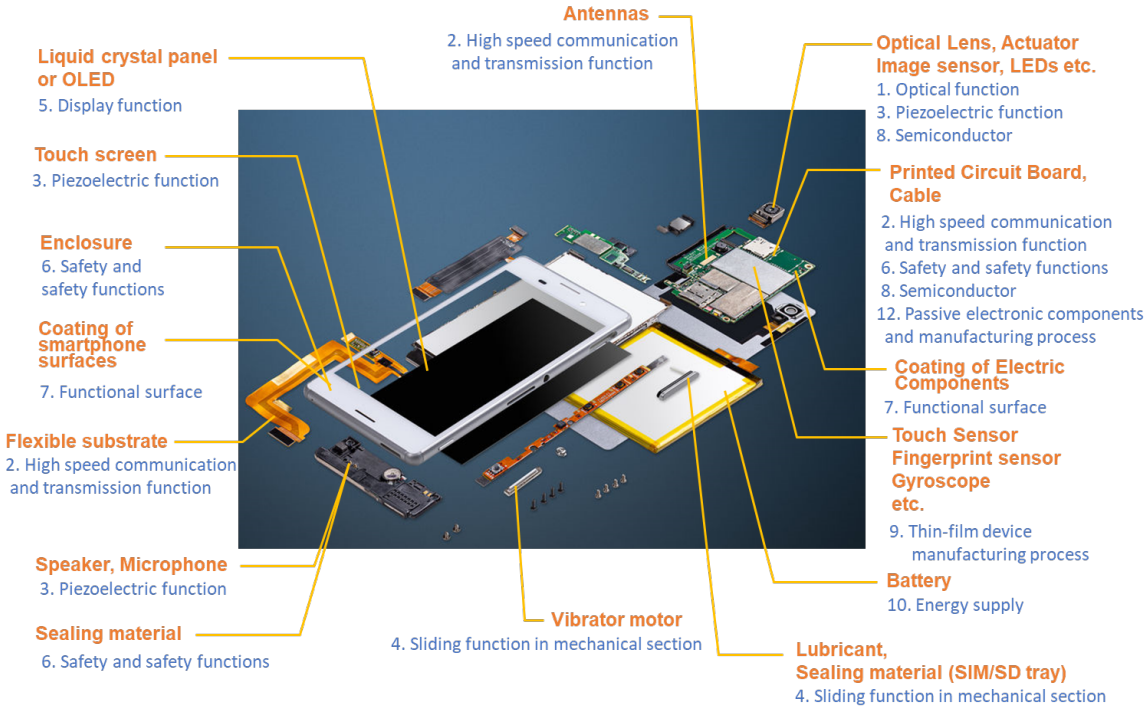
Justification: Though MRSA §1614 (4) currently exempts non-consumer electronics only, the technology used by electronics is almost the same for non-consumer and consumer ones in the current state of technology where the digitalization and advanced functionality are required also for the consumer products. MRSA §1614 (4) exempts semiconductors, but CUUs of PFAS in consumer electronics are not limited to the semiconductor units.

PFAS has multiple functionalities and can achieve those functionalities with high level at the same time. That is the PFAS's unique property and the most important reason for their use in the electronic products to attain the following functions:

1. Optical function
2. High-speed communication/transmission function
3. Piezoelectric function
4. Sliding function in mechanical section
5. Display function (Liquid crystal)
6. Safety and safety functions
7. Functional surface
8. Semiconductor
9. Thin film device production process
10. Energy supply (Battery, Fuel cells, Solar cells)
11. Refrigeration, Air-conditioning and heat pump sector RACHP (Refrigerant)
12. Passive electronic components and manufacturing process

For example, smartphones are consumer products and are not covered by the exemption of Nonconsumer electronics under MRSA §1614(4), but the state-of-the-art technology is used and cannot be manufactured without the PFAS CUUs in addition to the semiconductors, as shown in the figure below. Fixed analog phones could be manufactured without PFAS but current smartphones cannot be, and the Minnesota residents will not be able to purchase the smartphones within the State if consumer electronics is not exempted nor granted as CUU at least. The situation would be the same for other consumer electronics today such as televisions, personal computers, refrigerators, etc.

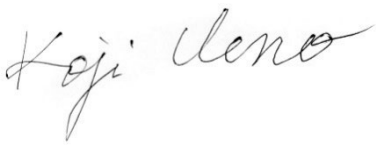
A mobile phone contains many electronic parts.
Many of those parts use PFAS as listed below.



Furthermore, most Global Product Classification (GPC) are not set to distinguish between consumer and non-consumer products.
Therefore, we are eager that the MPCA understands that the CUU entries we submitted in February 2024 would be hardly reduced its number of entries even if the MPCA exempts the same items as MRSA §1614 (4) in PFAS in Products Rule.

We would very much appreciate if you would give your careful consideration to our previous comments and above ones.

Sincerely yours,



Koji Ueno
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About Japanese electric and electronic (E&E) industrial associations (JP4EE):

About JEITA

The objective of the Japan Electronics and Information Technology Industries Association (JEITA) is to promote the healthy manufacturing, international trade and consumption of electronics products and components in order to contribute to the overall development of the electronics and information technology (IT) industries, and thereby further Japan's economic development and cultural prosperity.

About CIAJ

Mission of Communications and Information network Association of Japan (CIAJ). With the cooperation of member companies, CIAJ is committed to the healthy development of info-communication network industries through the promotion of info-communication technologies (ICT), and contributes to the realization of more enriched lives in Japan as well as the global community by supporting widespread and advanced uses of information in socio-economic and cultural activities.

About JBMIA

Japan Business Machine and Information System Industries Association (JBMIA) is the industry organization which aims to contribute the development of the Japanese economy and the improvement of the office environment through the comprehensive development of the Japanese business machine and information system industries and rationalization thereof.

About JEMA

The Japan Electrical Manufacturers' Association (JEMA) The Japan Electrical Manufacturers' Association (JEMA) consists of major Japanese companies in the electrical industry including: power & industrial systems, home appliances and related industries. The products handled by JEMA cover a wide spectrum; from boilers and turbines for power generation to home electrical appliances. Membership of 291 companies, http://www.jema-net.or.jp/English/

Beveridge & Diamond

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December 18, 2024

Submitted via the Minnesota Office of Administrative Hearings eComments Website

Katrina Kessler
Commissioner, Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194

Re: Comments on Upcoming Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per- and Polyfluoroalkyl Substances (PFAS)

Dear Commissioner Kessler:

The PFAS Pharmaceutical Working Group[1] is a group of manufacturers and distributors of drugs, biologics, animal drugs, and medical devices. PPWG appreciates the opportunity to provide comments on the Minnesota Pollution Control Agency (MPCA) planned new rule concerning submission of information on products containing PFAS (the Reporting Rule), implementing Minn. St. § 116.943 (Section 116.943), subdivision 2. These comments are in response to the MPCA's second request for comments to inform drafting of the Reporting Rule. We understand this request for comments is being held to combine the dockets for the Reporting Rule and a rule to establish fees for the Reporting Rule.

PPWG submitted comments in November 2023 in response to the MPCA's first request for comments on the Reporting Rule.[2] We reiterate our request in those 2023 comments that the MPCA should state expressly as part of this rulemaking, and in line with the principles of federal preemption, that U.S. Food and Drug Administration (FDA)-regulated products and their packaging are out of scope of the Reporting Rule.

Nonetheless, in the event that the MPCA does not make such a statement, our comments herein first request that the MPCA specify that the material restriction in Section 116.943, subdivision 2(d) does not apply to FDA-regulated products. The law states that a person must receive notification under subdivision 4 for this restriction to take effect, and subdivision 8 makes clear that subdivisions 4 and 5 of the statute do not apply to FDA-regulated products. The MPCA must therefore follow the Minnesota Legislature's direction and find that FDA-regulated products cannot

[1] PPWG's member companies, which include their subsidiaries and affiliates, are Amgen Inc.; Bristol Myers Squibb Company; GSK; Merck & Co., Inc.; Pfizer, Inc.; and Roche.
[2] PPWG's comments on the MPCA's planned Reporting Rule can be viewed in the Minnesota Office of Administrative Hearings' public commenting portal at https://tinyurl.com/bdefn5h9. The Group also submitted comments on the MPCA's planned PFAS Currently Unavoidable Use Rule, which can be viewed at https://tinyurl.com/97vxk9u9.

be restricted under subdivision 2(d). This finding is crucial to provide certainty to patients, medical professionals, and others that life-enhancing and life-saving FDA-regulated products will remain on the market in Minnesota in the event that such products are in scope of the Reporting Rule.

Our comments below also recommend provisions that will make the Reporting Rule more workable for the MPCA to administer and for the industry to comply with, if the MPCA were to not clarify that FDA-regulated products and their packaging are out of scope. Many of these recommendations will also foster compliance regarding non-FDA regulated products that nevertheless are used in pharmaceutical and medical device supply chains by upstream suppliers and by medical, pharmaceutical, and animal health product manufacturers for research and development, manufacturing, and distribution of FDA-regulated products. Namely, the MPCA should:

- Extend the January 1, 2026 reporting deadline by at least one year, given that the Reporting Rule is expected to be finalized (and the reporting portal is expected to be rolled out) just shortly before this current deadline. Companies will require the Reporting Rule to be finalized and the reporting portal to be operational well in advance of the reporting deadline in order to structure due diligence in a manner that will generate PFAS data that is of practical use to the agency. At a minimum, the MPCA should grant at least a one-year extension for FDA-regulated products given the complexity of supply chains for these products. The MPCA should also provide a clear and efficient process for others to request and be granted reporting extensions.

- Include a "known to or reasonably ascertainable by" (KRA) reporting standard in the Reporting Rule. The KRA standard is used by the U.S. Environmental Protection Agency (EPA) in that agency's Toxic Substances Control Act (TSCA) PFAS reporting rule under 40 C.F.R. Part 705, and this standard has recently been added to Maine's PFAS in products law at 38 M.R.S. § 1614(2)(A). Application of the KRA standard in the Reporting Rule would promote efficiency by helping harmonize reporting requirements in the U.S., and would allow reporting companies to rely on supplier declarations and to limit to manageable levels the scope of due diligence that manufacturers would be expected to undertake with upstream suppliers.

- Limit reporting to a specified list of PFAS with CAS Numbers. This recommendation is consistent with Section 116.943, subdivision 2(a), which requires reporting on "the amount of each PFAS, identified by its chemical abstract service registry number." Further, without a specified list of chemical names with CAS Numbers, tracking a class of tens of thousands of chemicals through complex supply chains, such as those that exist in this industry, is virtually impossible.

- Structure reporting based on broad product categories and broad PFAS concentration ranges. Reporting on product versions and granular PFAS concentrations is unrealistic, as this would drastically increase the reporting burden on the thousands of manufacturers that are expected to report. It would likewise increase the MPCA's responsibility to compare reports with small differences, where those differences likely have no connection to the amount or function of the intentionally added PFAS in the product.

- Include a de minimis threshold in the Reporting Rule for PFAS below 0.1% by weight in the product. A 0.1% by weight threshold provides a rational, reasonable level consistent with de minimis chemical levels applied by the EPA and other regulators, and would help mitigate the due diligence burden on supply chains.

- Incorporate a packaging exclusion into the Reporting Rule. An exclusion for packaging was recently added to Maine's PFAS in products law at 38 M.R.S. § 1614(4)(B), and such an exclusion in the Reporting Rule will help prevent a jurisdictional patchwork from forming.

- Provide robust protections in the Reporting Rule for confidential business information (CBI). Specifically, the Reporting Rule must contain a well-defined CBI framework that permits submitters to claim any and all reporting elements as CBI, and which also explains how such CBI will be stored by the MPCA and ultimately protected from unlawful disclosure to third parties. Such protections are especially critical for this industry, which depends on CBI to inform innovative breakthroughs that save lives and improve health outcomes.

I. Specify that the Material Restriction Linked to Alleged Failure to Report Does Not Apply to FDA-Regulated Products.

As discussed in our 2023 comments, the MPCA should expressly exclude FDA-regulated products from the scope of the Reporting Rule. This exclusion would be consistent with the principles of federal preemption and would also be in line with the FDA-regulated product exemption recently added to Maine's PFAS in products law at 38 M.R.S. § 1614(4)(E)-(F).

We acknowledge, however, that the MPCA indicated earlier this year in a Q&A and webinar that an exemption for FDA-regulated products will not be included in the Reporting Rule.[3] If the MPCA maintains this position, it should explicitly state that the material restriction tied to failure to report in Section 116.943, subdivision 2(d) does not apply to FDA-regulated products. For that restriction to come into effect, the person who sells, offers for sale, or distributes for sale the unreported product must have "received notification under subdivision 4." Subdivision 8 of the law expressly states that subdivisions 4 and 5 of the statute do not apply to FDA-regulated products, meaning that the material restriction in subdivision 2(d) cannot apply to FDA-regulated products.

The MPCA should therefore confirm, in adherence with the Minnesota Legislature's directive, that the material restriction linked to alleged failure to report does not apply to FDA-regulated products. This determination will provide certainty that FDA-regulated products, to the extent such products are in scope of the Reporting Rule, will remain available in Minnesota while remediation takes place. Further, as mentioned above and in our 2023 comments, tying the reporting obligation to a company's ability to sell and distribute FDA-regulated products would risk compromising the

[3] MPCA, Progress on PFAS Rule Development Webinar: Questions and Answers (September 2024), https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-00.pdf (noting specifically that medical devices are in scope of reporting); MPCA, Progress on PFAS Rule Development (July 18, 2024), https://www.pca.state.mn.us/sites/default/files/20240718-presentation-pfas-in-products-rulemaking.pdf (indicating on slide 7 that no exemptions beyond those listed in Section 116.943 will be included in the Reporting Rule).

federal process for drug and device approval and depriving patients of life-enhancing and life-saving medical treatments. The MPCA must avoid this result.

II. Extend the Reporting Deadline To Help Ensure There is Sufficient Time to Prepare Reports After Rule Finalization.

Subdivision 3(d) of Section 116.943 grants the MPCA broad authority to extend the reporting deadline if the agency determines that "more time is needed" for manufacturers to comply. Consistent with this legislative direction, we request that the MPCA extend the reporting deadline by at least one year (i.e., to January 1, 2027) for all entities. The original January 1, 2026 reporting deadline is only a year away, but the MPCA has yet to even propose the Reporting Rule. To add to this uncertainty, neither the webinar presentation nor MPCA's webpage on the Reporting Rule includes a timeline for finalizing the Reporting Rule except to indicate that the rule should be adopted by the January 1, 2026 deadline.[4] The MPCA also noted on slide 48 of its webinar presentation that the reporting system will not go live until "Late 2025," which is alarming given the large volume of data the reporting system will need to support almost immediately after the system becomes operational in anticipation of the January 1, 2026 deadline.

Companies cannot design and implement effective due diligence programs in preparation for reporting until the information to be submitted is specified in a finalized Reporting Rule and in an operational reporting system. Regulators and legislatures in other jurisdictions have started to recognize the need to set PFAS reporting deadlines far enough in the future to account for these facts. For instance, earlier this fall EPA delayed by about 8 months the submission window for the PFAS reporting rule issued under TSCA.[5] EPA justified the delay by pointing to the difficulties the agency has experienced in developing a workable reporting portal. Furthermore, in April 2024 and as mentioned above, the Maine Legislature overhauled that state's PFAS in products law. One crucial part of that amendment was that the law's reporting obligation was significantly narrowed in scope and delayed by *7 years* to January 1, 2032.[6] This amendment was consistent with changes to the Maine law that were recommended by the Maine Department of Environmental Protection (DEP), which was struggling to implement the reporting program under the original law in a timely manner.[7] Maine legislators also commented that the amendment "will make it easier for businesses to comply with the law" and is "a true compromise between all stakeholders."[8]

At a minimum, and if our requested generally applicable extension is not granted, the MPCA should grant a reporting deadline extension of at least one year for manufacturers of FDA-regulated products. The materials for these products are sourced globally with numerous tiers of suppliers, manufacturing facilities, and distribution channels. Adding to this complexity, member supply chains involve not just manufacturing and distribution, but also interactions with healthcare

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[4] MPCA, Progress on PFAS Rule Development, *supra* note 3; MPCA, PFAS in Products: Reporting and Fees, https://www.pca.state.mn.us/get-engaged/pfas-in-products-reporting-and-fees

[5] 89 Fed. Reg. 72362 (Sept. 5, 2024).

[6] 38 M.R.S. § 1614(2).

[7] Maine DEP, Regulatory Update: PFAS in Products Law at slide 12, in the October 2, 2023 Meeting Materials for the Maine Legislature Joint Standing Committee on Environment and Natural Resources, https://legislature.maine.gov/doc/10288.

[8] Maine Senate Democrats, Bill to Continue Phase Out of PFAS Contaminated Products Receives Committee Support (Mar. 21, 2024), https://www.mainesenate.org/bill-to-continue-phase-out-of-pfas-contaminated-products-receives-committee-support/.

providers, patients, and regulatory bodies that ensure products can be brought to market around the globe. Accordingly, it is simply not practicable to develop a full understanding of the chemical composition of all FDA-regulated products in a manner sufficient to report intentionally added PFAS by the January 1, 2026 deadline. First, companies in this industry will need to perform internal due diligence for each of their many products sold into Minnesota to assess whether these products may contain intentionally added PFAS. Second, companies in this industry may need to engage in external outreach with suppliers, which will take a considerable amount of effort and time given that products in this industry are produced through a global web of many suppliers. Then, all acquired information will need to be analyzed against the information responsive to the Reporting Rule and uploaded in the reporting portal, neither of which have been finalized as of yet and are not expected to be finalized for about a year from now. A reporting deadline extension of at least one year for FDA-regulated products will help address these concerns.

Furthermore, as part of this rulemaking the MPCA should establish a clear, efficient, and timely process for granting additional reporting deadline extension requests from manufacturers. Among other things, the MPCA should adhere to a deadline for responding to such requests, and if no response is provided by that deadline the requested extension should be considered granted. Manufacturers should also be given the opportunity to appeal the decision in the event that the MPCA does not grant the requested extension.

III. Limit Reporting to a Specified List of PFAS with CAS Numbers.

The MPCA should limit reporting to a finite list of PFAS with CAS Numbers. Without such a list, tracking the vast family of PFAS, which includes tens of thousands of chemicals, through the intricate supply chains that exist in the industry becomes nearly impossible. Our recommended approach is directly supported by the text of subdivision 2(a), paragraph 3 in Section 116.943, which mandates reporting on "the amount of each PFAS*, identified by its chemical abstracts service registry number*, in the product" (emphasis added).

Limiting reporting to a finite list of PFAS with CAS Numbers is also consistent with PFAS reporting schemes in other jurisdictions. For example, Environment and Climate Change Canada (ECCC) released PFAS reporting requirements in July 2024 that are limited to 312 specific PFAS, each of which carry a CAS Number or Confidential Accession Number (for when the specific chemical identity is confidential).[9] This list of 312 PFAS was chosen because these specific PFAS are known or anticipated to be in Canadian commerce and have not recently been surveyed, as opposed to a larger universe of PFAS without a nexus to commerce.[10] The MPCA should follow ECCC's direction in the Reporting Rule.

[9] Canada Gazette, Part I, Volume 158, Number 30: Supplement, Notice with respect to certain per- and polyfluoroalkyl substances (July 27, 2024).
[10] ECCC, Guidance Manual For responding to the: Notice with respect to certain PFAS, at page 5 (July 2024), https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/pfas-s71-guidance-manual.html.

IV. Include the KRA Standard in the Reporting Rule to Cabin Due Diligence to a Practicable Level.

We support MPCA's plan, as specified in its Q&A, for the Reporting Rule to include a due diligence standard.[11] The MPCA noted in this Q&A that a reporting standard "acknowledges the challenges posed by unknowns in best testing practices, the unavailability of data from all supplier levels, and the varying costs of information gathering across organizations with different resources." The MPCA also stated that a due diligence standard will "ensure that due diligence efforts are reasonable and feasible for manufacturers."

The due diligence standard included in the Reporting Rule should be harmonized with standards adopted in other jurisdictions, since this harmonization will support the MPCA's goal to ensure due diligence is "reasonable and feasible for manufacturers." Specifically, the MPCA should incorporate the KRA standard, which has been adopted as a due diligence standard by several regulators. For instance, EPA has applied the KRA standard in its TSCA chemical data reporting rule for many years and recently extended its application to the TSCA PFAS reporting rule.[12] Maine also incorporated the KRA standard into its PFAS in products law through the amendment passed earlier this year.[13] Similarly, ECCC's PFAS reporting requirements limit reporting to information that a company "possesses or . . . may reasonable be expected to have access to."

The MPCA should follow the almost identical due diligence standards used in these three jurisdictions. We therefore recommend the following provision be incorporated into the Reporting Rule:

> *A manufacturer is only required to report information under this part to the extent such information is known to or reasonably ascertainable by the manufacturer. "Known to or reasonably ascertainable by" means all information in the manufacturer's possession or control as well as all information that a similarly situated company might be expected to possess, control, or know.*

V. Structure Reporting Based on Broad Product Categories and Broad PFAS Concentration Ranges.

The MPCA should simplify the reporting process by organizing reporting around broad product categories. Any alternate process where companies would be required to report individual product versions would be unrealistic and significantly increase the reporting burden on thousands of manufacturers, without providing materially meaningful information to the MPCA. It would likewise increase the MPCA's responsibility to compare reports with small differences in product versions, where those differences are likely to have no connection to the amount or function of the intentionally added PFAS in the product.

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[11] MPCA, Progress on PFAS Rule Development Webinar: Questions and Answers, *supra* note 3 at page 17 ("A due diligence standard will be included in the reporting rule").
[12] *See*, e.g., 40 C.F.R. § 711.15; 88 Fed. Reg. 70516 (Oct. 11, 2023).
[13] 38 M.R.S. § 1614(2)(A) ("The manufacturer shall submit to the department a written notification that includes, to the extent known to or reasonably ascertainable by the manufacturer…").

For instance, medical, pharmaceutical, and animal health products are often designed, formulated, and dosed for the specific setting these products will be used in, with each variation in presentation being a separate product. Further, presentations may change over time as the FDA approves alterations to a product, and some presentations may be discontinued. The MPCA should therefore employ the use of broad product categories in the Reporting Rule, such as those used by EPA under the TSCA PFAS reporting rule.[14]

The MPCA should likewise permit companies to report broad PFAS concentration ranges, as opposed to arbitrarily short ranges or exact PFAS concentrations. Subdivision 2(a), paragraph 3 of Section 116.943 grants the MPCA the authority to designate reporting concentration ranges, and such ranges are critical given that there are no commercially available methodologies for identifying exact PFAS quantities in products. Moreover, without predefined ranges that are known well in advance of the reporting deadline, manufacturers cannot adequately structure due diligence in preparation for reporting.

Reporting based on concentration ranges has been a long-established practice in several other chemical disclosure programs, including under the Globally Harmonized System for Classification and Labeling of Chemicals for Composition and Information on Ingredients (GHS),[15] EU Substances of Concern in Products (SCIP) reporting,[16] and EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).[17] ECCC's PFAS reporting requirements likewise permit reporting using concentration ranges.[18]

The MPCA should employ broad PFAS concentration ranges that are realistic and manageable to structure due diligence around, as opposed to narrow ranges that may have arbitrary boundaries. The MPCA's ranges should also be harmonized with those used by EPA under the TSCA PFAS reporting rule for articles:[19]

- At least 0.1% but less than 1% by weight;
- At least 1% but less than 10% by weight;
- At least 10% but less than 30% by weight;
- At least 30% by weight.

VI. Include a De Minimis Threshold in the Reporting Rule.

The MPCA should specify in the Reporting Rule that reporting is not required for products containing less than 0.1% by weight of PFAS. Section 116.943 only applies to intentionally added PFAS, and PFAS below our requested de minimis level is very likely to be unintentionally present. Further, this de minimis level aligns with similar thresholds employed in several other chemical reporting and restriction programs, such as EU REACH, which includes a 0.1% by weight reporting

[14] See the list of product categories in Table 5 to paragraph (c)(4) in 40 C.F.R. § 705.15.
[15] GHS Rev. 10, 2023, at pages 412-13, https://unece.org/transport/dangerous-goods/ghs-rev10-2023.
[16] European Chemicals Agency, Key Tips for Successful SCIP Notifications, at slides 10 and 12 (Dec. 2020), https://echa.europa.eu/documents/10162/6205986/key_tips_for_successful_scip_notification_en.pdf/452a0fb6-2a91-ca37-034e-7b3c09a695be.
[17] EU REACH, Annex II section 3.2.
[18] Notice with respect to certain PFAS, *supra* note 17, at section 12(c)(ii).
[19] Table 1 to paragraph (a)(3)(viii) in 40 C.F.R. § 705.18.

threshold for substances of very high concern.[20] Similarly, the EU Restriction of Hazardous Substances Directive (RoHS) limits the presence of certain substances to a 0.1% concentration threshold.[21] EPA has also recently incorporated 0.1% concentration thresholds into chemical restrictions under several TSCA rules, including in the agency's restrictions for phenol, isopropylated phosphate (3:1) (PIP (3:1)) and decabromodiphenyl ether (decaBDE),[22] as well as in EPA's methylene chloride risk management rule.[23]

A 0.1% de minimis threshold in the Reporting Rule is rational and reasonable, and it would help avoid imposing excessive due diligence burdens on companies to detect trace chemical amounts throughout global supply chains. This de minimis threshold would also alleviate administrative burdens on the MPCA by reducing the number of notifications for items containing only trace amounts of PFAS. We therefore recommend that the MPCA include the following provision in the Reporting Rule:

> *This part does not apply to the sale, offer for sale, or distribution in the state of products containing less than 0.1% by weight of any PFAS.*

VII. Incorporate a Scope Exclusion for Packaging into the Reporting Rule.

We request that the MPCA incorporate an exclusion for product packaging into the Reporting Rule. We acknowledge how, in the MPCA's recent Q&A, the agency explained that "[p]ackaging which is integral to the product – necessary to contain, protect, or dispense the product – would be included in reporting and prohibitions if it contains intentionally added PFAS."[24] The MPCA did not provide a justification for this statement, and we believe this requirement to report product packaging is misinformed. Product manufacturers often lack detailed information on the chemical composition of packaging used for their products, and it would be unrealistic to expect these manufacturers to ascertain this chemical composition data in the compressed timeframe for reporting under the Reporting Rule. Moreover, the recently enacted amendment to Maine's PFAS in products law incorporates an explicit exclusion for packaging, [25] and the MPCA should follow suit in the Reporting Rule to prevent a jurisdictional patchwork from forming. Accordingly, the MPCA should incorporate the following packaging exclusion into the Reporting Rule:

> *This part does not apply to product packaging, except when that packaging is sold individually and not used in the marketing, handling, or protection of a product.*

VIII. Include Provisions in the Reporting Rule to Adequately Protect CBI.

The Reporting Rule must incorporate highly protective and enforceable CBI protections for submitted data. The medical, pharmaceutical, and animal health product industry treats the chemical composition of materials as proprietary information that is carefully protected and of significant commercial value. This proprietary information includes not just PFAS identities, but

[20] EU REACH, Art. 7(2) (this threshold is calculated by reference to the weight of an article).
[21] EU RoHS, Annex II (this threshold is calculated by reference to the wright of a homogenous material).
[22] 89 Fed. Reg. 91486 (November 19, 2024).
[23] 89 Fed. Reg. 39254-302 (May 8, 2024).
[24] MPCA, Progress on PFAS Rule Development Webinar: Questions and Answers, *supra* note 3 at page 5.
[25] 38 M.R.S. § 1614(4)(B).

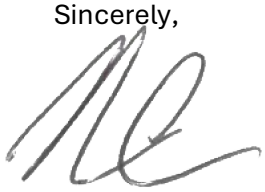
also the purpose of the PFAS in the product, production volumes, and most other elements that the Reporting Rule may require submittal of information on. It may also include, in some instances, the fact that a particular manufacturer is reporting at all given that this inherently requires the disclosure that one or more of that manufacturer's products contains intentionally added PFAS.

The need to protect CBI in the medical, pharmaceutical, and animal health product industry is unparalleled. This industry depends on innovation to enable breakthroughs that save lives and improve health outcomes, and this innovation in turn requires protections for CBI. The Reporting Rule must therefore contain a well-defined CBI framework that permits submitters to claim any and all reporting elements as CBI, and which also explains how such CBI will be stored by the MPCA and ultimately protected from unlawful disclosure to third parties.

IX. Conclusion.

PPWG thanks the MPCA for considering its comments to inform future drafting of the Reporting Rule. If you have any questions, please feel free to contact me.

Sincerely,



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Gary Cross Attachment

Minnesota Pollution Control Agency (MPCA)
Resource Management and Assistance Division

Comment Due Date: December 19, 2024

Comments of the Industrial Truck Association

REQUEST FOR COMMENTS on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (Previously R-4828 for PFAS in products: Reporting and R-4827 PFAS in Products: Fee rules)

INTRODUCTION

The Industrial Truck Association ("ITA") is the national trade association representing manufacturers of powered industrial trucks, primarily forklifts, sold in North America. ITA appreciates the opportunity to comment on the above-referenced matter concerning PFAS reporting as applied to complex manufactured articles under Amara's law.[1]

SUBMISSION OF REQUIRED INFORMATION

As several other trade associations and companies have discussed in earlier comments (filed during the comment period September 25, 2023 through November 28, 2023), Amara's law poses seemingly insurmountable compliance problems for manufacturers, such as ITA members, who manufacture complex industrial machines containing thousands of components, many of which may contain PFAS as PFAS is defined in the law.[2] The heart of the problem is

[1] ITA currently has no comments concerning fees, believing that more clarity regarding the requirements for submitting information will be necessary before formulating a position on fees.
[2] Among the commenters who have raised this issue are the Engine Manufacturers Association, the Association of Home Appliance Manufacturers, the Alliance for Automotive Innovation, the Association of Equipment Manufacturers, the Coalition of Manufacturers of Complex Products,

that manufacturers of offroad vehicles do not have the visibility through their multi-tiered supply chains to enable them to determine whether a given component that resides at the beginning of the supply chain, such as a rubber seal or gasket, may have been formulated with one or more PFAS substances and, if so, the precise amount and formulation of the substance. ITA members generally have no commercial relationship with or knowledge about these last-tier suppliers, whose products are incorporated into subcomponents, then into components, then into subassemblies and assemblies, and finally into systems, such as an engine that the forklift manufacturer installs in the forklift. And as others have pointed out, even if these last-tier suppliers could be identified, they are unlikely to know, or be authorized to disclose, the chemical composition and precise amounts of the PFAS in the myriad parts they supply.

Considering this reality, obtaining chemical abstract service registry numbers for any PFAS that may exist in a forklift by trying to identify and contact all potentially relevant businesses throughout a vast supply chain for dozens of models and hundreds of components will not be possible. Attempting to obtain individual laboratory analysis of all potential PFAS-containing parts—individual seals, gaskets, hoses, electronic components, etc.—would be equally unrealistic.

ITA members and other manufacturers of offroad vehicles have been working to understand from technical literature and data-base searches where PFAS might exist in some of the subcomponents of their products, such as various tubes and hoses, sensors, gaskets, seals, and a variety of electronic components. These industry-level analyses are useful for understanding the numerous possible uses of PFAS and ways to characterize and differentiate the different

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and (collectively) the National Marine Manufacturers Association, the Marine Retailers Association of the Americas, and the Water Sports Industry Association.

types of PFAS used in offroad-vehicle applications in terms of chemical structure, bioavailability, representation on various regulatory lists, etc.[3] While valuable, however, these efforts will not enable manufacturers to provide for each forklift model, pursuant to subdivision 2(3) of the statute, "the amount of each PFAS, identified by its chemical abstracts service registry number, in the product, reported as an exact quantity . . .." If obtaining and reporting this level of detail is a prerequisite to continuing to sell products in Minnesota, ITA foresees dire consequences for manufacturers and for the State.[4]

Other authorities facing this problem have taken various approaches to address it. As the State of Maine's Department of Environmental Protection was in the process of drafting a regulation to implement statutory provisions very similar to those in Amara's law and was evaluating comments about this same problem of identifying PFAS in complex manufactured articles with long supply chains, Maine's legislature chose to amend its law in significant ways, which had the effect of eliminating the reporting requirement for motor vehicles, including offroad vehicles. For U.S. EPA's one-time PFAS reporting rule under section 8(a)(7) of the Toxic Substances Control Act ("TSCA"), manufacturers of complex articles need report only "known or reasonably ascertainable information" in their possession. Other TSCA chemical reporting regulations exempt "articles" from the reporting requirements. Canada's regulation removes the reporting obligation for some imported manufactured items based on the weight and

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[3] It appears that automotive-type uses of PFAS, such as in forklifts, involve primarily fluoropolymers, which, as discussed by many commenters to MPCA, are the category of PFAS of least concern from a health and environmental standpoint.

[4] From a health and safety or environmental standpoint, ITA is not aware of any concern associated with PFAS exposure from an offroad vehicle; indeed, the reasons for incorporating PFAS in engine components, such as fire-suppression, are safety-based. But halting the introduction of the newest-technology forklifts into Minnesota would carry many negative implications.

concentration levels of PFAS. Each of these approaches recognizes, at least implicitly, that complex manufactured items present a serious reporting challenge.

Absent legislative changes akin to Maine's, ITA would like to work with MPCA to consider ways, consistent with the text and intent of Amara's law, to address this problem. One approach lies in MPCA's subdivision 2(a)(3) authority to approve the reporting of quantities "falling within a range approved for reporting purposes by the commissioner," rather than exact amounts of each PFAS. As other commenters have noted, this provision may create a basis for setting *de minimis* reporting thresholds that eliminate the problem. MPCA's authority to approve reporting under subdivision 2(b) "for a category or type of product" rather than for each individual product could be considered in determining appropriate reporting ranges/*de minimis* thresholds. Together, 2(a)(3) and 2(b) might permit MPCA to gather information about the overall PFAS content of a category of products, such as forklifts, short of an impossibly precise component-by-component analysis. MPCA also has discretion in whether to issue a notification under subdivision 4, absent which there is no prohibition on sale notwithstanding the manufacturer's inability to provide the detailed information. ITA hopes that these provisions are a basis on which manufacturers of complex products acting in good faith can provide adequate information to MPCA under subdivision 2 even if they are unable to provide "the amount of each PFAS, identified by its chemical abstracts service registry number, in the product, reported as an exact quantity . . .."

Finally, it seems certain that more time will be needed to work through this problem. ITA therefore expects that MPCA will receive numerous requests under subdivision (3)(d) to "extend the deadline for submission by a manufacturer of the information required under subdivision 2" and requests in advance that MPCA look favorably upon those requests.

CONCLUSION

ITA members are concerned that Amara's law will jeopardize their ability to sell forklifts in Minnesota if the law is interpreted to require literal compliance with subdivision 2(a)(3) because literal compliance will not be possible. ITA urges MPCA to explore regulatory approaches that will balance the State's need for PFAS data with a realistic understanding of the limited, non-specific PFAS information currently available to manufacturers of complex products. ITA and its members look forward to further engagement with MPCA for this purpose.

Respectfully submitted,

Gary Cross, Dunaway & Cross, General Counsel to Industrial Truck Association

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By: OAH on 12/18/2024

Andrew Bemus Attachment

SUSTAINABLE PFAS ACTION NETWORK

December 18, 2024

Response to Request for Comments on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS)
Revisor's ID Number R-4828; Minnesota Statutes 116.943

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

The Sustainable PFAS Action Network (SPAN) is pleased to submit the following comments concerning the planned new rules for submission of required information about products containing PFAS.

Background

SPAN is a coalition of PFAS users and producers committed to sustainable, risk-based PFAS management. Our members advocate for responsible policies grounded in science that provide assurance of long-term human health and environmental protection while recognizing the critical need for certain PFAS materials for U.S. economic growth and global competitiveness. In a recent study by INFORUM, a Washington-based economic consulting firm, it was reported that critical PFAS-using industries (e.g., automotive, aerospace, air conditioning and refrigeration, medical device and pharmaceutical, battery, and semiconductor industries) contribute more than $1 trillion to the U.S. gross domestic product each year, accounting for more than six million U.S. jobs, while providing annual wages estimated to exceed $600 billion. In Minnesota alone, the industries in which SPAN members participate (specifically aerospace, semiconductor, and air conditioning and refrigeration), contribute more than $8 billion in annual economic output, employ more than 42,000 Minnesotans directly and indirectly, and generate greater than $2.5 billion in annual wages. SPAN was formed with the objectives of ensuring legislators and regulatory agencies are aware of the essentiality of products generated by our members while simultaneously supporting practical regulatory programs focused on protecting human health and the environment and maintaining America's global economic edge.

SPAN would like to reiterate the comments it originally provided to MPCA in November 2023. Additionally, SPAN requests that MPCA consider three specific recommendations as it moves forward with the rulemaking process, elaborated in the letter below: (1) that a clear distinction be made between industrial and consumer products; (2) that MCPA incorporate lessons learned from the state of Maine's process of imposing PFAS in products restrictions; and (3) that MCPA utilize a prioritization process to determine the products that should be subject to regulation first, based on data EPA will receive in the near future.

Distinguish Between Industrial and Consumer Products

The definition of "product" in the statute is "an item manufactured, assembled, packaged, or otherwise prepared for sale to consumers, including but not limited to its product components, sold or distributed

for personal, residential, commercial, or industrial use, including for use in making other products." SPAN requests that MPCA clarify in the regulatory proposal that the definition in the statute of "product" is, as was intended by the legislature, limited to those products made available to consumers for their personal use. If the definition was intended to apply to **any** purchasers, there would be no need to include the language that the "item is … prepared for sale to consumers." The statute could have simply stated that a product is an "item…prepared for sale." SPAN believes that the exclusion of complex goods that are used in commercial and industrial applications from the definition of consumer-use products reflects a common-sense and risk-based approach; consumer-use goods potentially create more exposure opportunities than other goods, such as commercial and industrial products.

Consequently, MPCA should include language in the proposal to make clear that PFAS-containing products that are used in commercial settings (e.g., office equipment) and in industrial and manufacturing applications (e.g., industrial and commercial devices, such as mechanized systems and robotics) are excluded from the reporting and the prohibitions requirements under the law.

Incorporate Lessons Learned from Maine

In 2021, the Maine legislature enacted Public Law 2021, c. 477, An Act To Stop Perfluoroalkyl and Polyfluoroalkyl Substances Pollution (LD 1503, 130th Legislature). As the Maine Department of Environmental Protection attempted to develop the regulatory program to implement the law, they were presented with significant challenges. The Maine legislature acknowledged those challenges, and in 2024 amended the law to reflect a more practical and efficient approach. These changes were implemented in LD1537, which was signed into law by Governor Janet Mills on April 16, 2024.

In the reform law, the general requirement to notify Maine of the presence of PFAS in products was removed. As opposed to an imposition of a restriction on all products containing PFAS, a number of new sales prohibitions were established with varying effective dates for specific categories of products with intentionally added PFAS. Some specific exemptions to the prohibitions were also added, and a new reporting program focused solely on PFAS uses in products that are determined to be currently unavoidable was established. Additionally, even in that case, the written notification only requires the reporting of information that was known to or reasonably ascertainable by the manufacturer.

Before advancing a regulatory proposal, SPAN suggests that MPCA take note of the challenges that Maine faced and incorporate responses to those challenges in any final regulatory proposal. For example, MPCA should exempt complex durable goods that are built for a longer product life and have a significant number of constituent components, given the difficulty of implementation and that many of these component parts are not accessible, and therefore pose low direct human exposure risk. The exemption should include items such as aircraft, cars, and many electronic devices. MPCA should also take note of how the reporting requirement was modified and why such changes were made.

Utilize Information Received by EPA to Determine Products that Should be Subject to Regulation First

As noted in our prior comments, SPAN supports using the rulemaking process as a means to ensure the regulated community and MCPA have a common understanding of the processes and criteria that MPCA will be using for purposes of prioritizing for potential prohibitions. Subdivision 5 of the statute states that products and product categories that, "in the commissioner's judgment, are most likely to contaminate or harm the state's environment and natural resources if they contain intentionally added

PFAS" should be prioritized for use controls. SPAN supports this inclusion, and would like to encourage MPCA to elaborate on this language during the rulemaking process.

As SPAN has previously noted, pursuant to Section 8(a)(7) of the Toxic Substances Control Act (TSCA), EPA is requiring any person that manufactures or has manufactured (including imported) PFAS (as a substance or as a chemical in a formulation or mixture) or PFAS-containing articles in any year since January 1, 2011 to electronically report information regarding PFAS uses, production volumes, disposal, exposures, and hazards. EPA is initiating this reporting program to gather data on the production, use, exposure, and environmental and health effects of PFAS in the United States, to enable EPA to more effectively determine what further measures concerning PFAS might be appropriate.

SPAN recommends MPCA maximize the benefit that can be gained from the information being gathered by EPA. Specifically, SPAN recommends that any prioritization efforts be based on data gathered through the EPA PFAS reporting rule. A risk-based process should be structured and applied during evaluation of any potential regulatory restrictions, taking into consideration the factors affecting exposures (e.g., production volumes, nature and conditions of manufacture and use) and hazard (e.g., toxicity, bioaccumulation, persistence). The process established should enable potentially affected entities to apply for, and provide technical support for, an essential use determination. Using preexisting information – information collected by EPA from across the United States – will make the process more efficient and transparent.

Conclusion

SPAN appreciates the opportunity to provide input in advance of the proposed rules being issued for consideration. Please contact SPAN with any comments or questions.

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Chad Reece Attachment

WINNEBAGO
INDUSTRIES

December 18, 2024

Submitted to the Minnesota Office of Administrative Hearings via Rulemaking eComments:
https://minnesotaoah.granicusideas.com/

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Subject: Regulations on Reporting and Fees for Manufacturers Submitting Information About Products Containing Per- and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

Winnebago Industries appreciates the opportunity to comment on the Minnesota Pollution Control Agency (MPCA) Request for Comments on the PFAS in Products Reporting and Fee Rule. This rule will require manufacturers to report information to MPCA on products sold, offered for sale, or distributed in the state which contain intentionally added PFAS, and would establish a fee structure for required reporters.

Winnebago Industries

With over 5,500 U.S. employees, Winnebago Industries is a leading U.S. manufacturer of outdoor lifestyle experiences under the Winnebago, Grand Design, Chris-Craft, Newmar and Barletta brands. We build quality motorhomes, travel trailers, fifth-wheel products, outboard and sterndrive powerboats, pontoons and commercial community outreach vehicles.

Our premium brands are synonymous with discovering and exploring outdoor adventures through recreation vehicles and boats. For over 66 years, Winnebago Industries has helped Minnesotans explore the great outdoors, including our National Parks and National Forests, state, county and local parks, private campgrounds, lakes, rivers and beaches.

Both RVing and boating are significant economic drivers in Minnesota with RVing supporting 857 Minnesota businesses with 15,120 jobs and $3 Billion in annual economic impact while recreational boating supports 717 Minnesota businesses with 25,877 jobs and $6.9 Billion in annual economic impact. That total combined annual economic impact in Minnesota is a staggering $9.9 Billion!

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Reporting Scope and Process

While we are supportive of better tracking of PFAS use, the possible overall scope of reporting vs. significance of science-based impact is concerning. Currently, the EPA's PFAS Master List covers over 12,000 potential chemicals. That wide of a scope would create significant complexity and burden in the reporting process. We would ask that MPCA consider focusing reporting requirements on PFAS chemicals that are of known concern based on current available science and data and excluding those that have been determined to be of low concern.

Additionally, we would ask that as Unavoidable Use determinations are made for specific product categories, that they are designated to remain in effect for the lifetime of the product. Following this approach will provide stability for manufacturers and retailers and enable compliance without the added uncertainty of frequent re-evaluations.

We also recommend MPCA permit Aggregate Reporting at the Total Product Level (Vehicle) rather than individual models. This latitude is provided in Section 116.9407, Subdivision 2(B) allowing the commissioner to approve reporting by product category or type instead of by each individual product. RV and Marine manufacturers have numerous models with each boat, motorhome and travel trailer containing thousands of individual parts, assemblies, and subassemblies. With reporting on each individual part, manufacturers will see an unreasonable burden and the database will be overwhelmed with repetitive data points. While we are specifically pointing out RV's and Marine products, the same logic would apply to all sectors that provide complex durable goods to consumers.

Aggregate Reporting at the Total Product Level would provide accurate measures of PFAS content in a more logistical and cost-efficient manner, while providing MPCA with the information it needs to fulfill the requirements of the law.

Reporting Fees

Under Section 116.9407, Subdivision 6, the commissioner has the ability to establish fees to cover the costs of implementing the reporting requirements. We would ask that MPCA seek to limit financial impact of fees on the regulated community. Minnesota businesses continue to see additional cost impacts on a wide variety of fronts and each of these unfortunately also increase the end use cost to Minnesota consumers.

WINNEBAGO
INDUSTRIES

Winnebago Industries would request that every consideration be examined to limit the fee burden including evaluating:

- a one-time, reasonable fee based on unit number sales volume into the state
- establishing a fee for non-reporting users accessing the database
- allowing for aggregate reporting at the “Total Product Level” as noted above

Winnebago Industries is also aware of, and is supportive of, comments filed by the RV Industry Association and the National Marine Manufacturers Association specific to Regulations on Reporting and Fees for Manufacturers Submitting Information About Products Containing Per- and polyfluoroalkyl substances (PFAS), and we appreciate the opportunity to submit our comments to the Minnesota Pollution Control Agency.

Sincerely,

Chad Reece

Winnebago Industries, Vice President, Government and Industry Relations

creece@wgo.net

641-590-1515

WINDOW & DOOR MANUFACTURERS ASSOCIATION
WDMA

December 18, 2024

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Re: Planned New Rules Governing Currently Unavoidable Use Determinations about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4837

Dear Commissioner Kessler,

The Window and Door Manufacturers Association (WDMA) appreciates the opportunity to comment on the implementation of the new rules governing products containing PFAS substances. Our members manufacture windows, doors and skylights for homes and buildings across the country and in many other countries. Many of our member companies' products are manufactured in Minnesota. Overall, our industry is dedicated to evolving building products that contribute to human and ecosystem health and well-being.

We recognize that PFAS chemicals are a serious problem. Through these comments, we seek to be partners in solving this issue. However, there are several concerns our membership has raised with the current version of the proposed rule. We welcome your consideration of these concerns and our recommendations for amendments to the proposed rule.

1. PFAS products reporting rule should contain clear definitions and use existing Chemical Abstract Service registry numbers.

To streamline reporting, there are several key definitions that require clarification.

The definition of PFAS should include a list of the specific targeted chemicals identified by their Chemical Abstract Service (CAS) Registry Numbers. This would ensure consistent interpretation across the reporting entities.

The definition of what constitutes a "manufacturer" would benefit from more details. For example, specific examples of who qualifies as a manufacturer will help clarify who is responsible for reporting across complex global supply chains. Likewise, the definition of "intentionally added PFAS" would benefit from specific examples to provide clarity to reporting entities.

2. The Reporting Process should provide clarity and be clear when manufacturers have highly customizable products.

There are several areas where greater clarity is required to ensure a smooth and efficient reporting process. We have identified three areas where improvements can be made.

1. *Custom-Configured Products:* Guidance on reporting requirements is needed for products with unique configurations (e.g., custom sizes or options)
2. *Products without numeric identifiers:* Clarification is needed on reporting for products lacking UPCs, SKUs, or similar identifiers.
3. *Purpose and Amount of PFAS:* Requiring manufacturers to disclose the purpose and precise quantities of PFAS in products would require significant detail from upstream suppliers. Many manufacturers lack control over supplier response rates and data accuracy. To ensure compliance with this requirement, we recommend limiting requirements to products identified as posing high risks to human health or the environment.

3. To ensure the availability of data, proprietary information and data provided must be protected

Balancing the need for data and protecting proprietary information and intellectual property. Manufacturers of windows, doors, and skylights invest significantly in research and development to make the most energy efficient and quality products possible and this needs to be protected.

Manufacturers' proprietary information should remain confidential. Assigning anonymized codes to manufacturers and products could facilitate compliance while safeguarding sensitive information. Protecting confidential data minimizes the risk of public misinterpretation and frivolous legal claims, ensuring safe reporting and minimizing the reporting burden for manufacturers.

4. MCPA should look to other states and strive for uniformity in regulation to ensure consistent treatment particularly for Currently Unavoidable Use (CUU) cases.

Mitigation of PFAS is a growing area of concern for many states. Aligning Minnesota's requirements with those of other states such as Maine will ensure that this is the most effective implementation possible. Other states have also begun to categorize PFAS by risk. Not all PFAS chains represent the same level of risk, and this should be recognized in regulation. This should be represented by the best science available.

It is in that same vein MPCA should establish criteria defining "essential for health, safety, or the functioning of society" when making determinations for currently unavoidable use (CUU) exemptions. Clarity with CUU exemptions is critical to orderly compliance and administration of a law with such broad societal impact.

There are several needs and policy objectives that are essential to products containing PFAS including those from WDMA members. Windows Doors and Skylights are durable goods that generate less waste and are crucial to sustainability goals. For example, PFAS removes friction points in WDMA's members' products because PFAS lowers the necessary operating force. This is more than a marketing pitch. The ease with which individuals can manipulate their home furnishings like windows, doors, and skylights allows disabled and aging Minnesotans to vibrantly remain independent and in their homes.

Minnesota's State Building Codes require windows, doors, and skylights to meet strict energy, sustainability, and performance standards based on national guidelines from ICC and ASHRAE. These standards ensure safety, functionality, and energy efficiency in commercial and residential buildings.

Windows, doors, and skylights significantly affect thermal performance, influencing heating, cooling, and lighting demands. Energy codes mandate criteria like U-factor, solar heat gain, and air tightness to conserve energy, reduce environmental impact, and enhance community well-being. MPCA should consider these standards essential for health, safety, and societal functioning and exempt them under the CUU.

5. The PFAS Fee Structure should be fair and be on a per-company basis.

To ensure fairness and simplicity in compliance we are recommending the following ideas.

Per company fees would minimize complexity compared with a per-product or per-PFAS structure. Likewise, allocating fees to support research into PFAS alternatives would promote long-term economic and ecological benefits that we all seek.

Fees for updates such as reducing or eliminating PFAS in products should be minimal to incentivize improvements. There should be clear cost parameters for the implementation of this law and a fee working group should be established to ensure transparency and equitable cost distribution.

6. Conclusion

WDMA appreciates the Minnesota Pollution Control Agency's (MPCA) efforts to address the challenges posed by PFAS substances. We believe that collaboration and thoughtful implementation of these rules is essential to achieving the shared goals of environmental stewardship and sustainable manufacturing.

We are hopeful MPCA will consider the recommendations outlined in this letter to ensure clarity, fairness, and efficiency in the regulatory process. By fostering alignment with other states, safeguarding proprietary information, and streamlining compliance requirements, Minnesota can lead the way in setting a standard for effective PFAS regulation while minimizing undue burdens on manufacturers.

We look forward to continued engagement and stand ready to assist in these important initiatives. Please feel free to reach out to Government Affairs Director Michael Pierce at mpierce@wdma.com with any questions.

Sincerely,

John Crosby
President & CEO

RECEIVED
By: OAH on 12/19/2024

Ian Choiniere Attachment

Minnesota Pollution Control Agency
REQUEST FOR COMMENTS on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (Previously R-4828 for PFAS in products: Reporting and R-4827 PFAS in Products: Fee rules)
December 19, 2024

On behalf of Solvay Specialty Polymers USA, LLC, member of the Syensqo Group ("Syensqo"), we appreciate the opportunity to submit comments to the to the Minnesota Pollution Control Agency (PCA) on the rules governing reporting and fees paid by manufacturers upon submission of required information about Products Containing Per-and polyfluoroalkyl substances (PFAS).

Syensqo is a global leader in advanced materials and specialty chemicals. Our tailor-made range of products and constantly evolving research offers everyday sustainable market-based solutions for next-generation transportation, resource efficiency, consumer goods, healthcare, and industrial production to accommodate U.S. consumers' needs. Syensqo, through its predecessors, has been connecting people and scientific minds for 160 years. Innovation is at our core and part of our DNA. In the United States, Syensqo employs over 4,800 people working in over 35 sites across 25 states. Our U.S. footprint includes our composite materials manufacturing site in Winona, Minnesota where we have over 200 employees. This site is critical to the American aerospace and defense industrial base and provides irreplaceable materials for military and civilian applications.

We support all measures to keep the public safe, and our air and water resources clean for generations to come. We applaud the state's actions to find ways to appropriately regulate PFAS. Further, we are encouraged by many of the specific steps that would address some of the more common and higher-risk routes of potential environmental and human health exposure. As a global leader in fluoropolymer manufacturing, Syensqo hopes to have an open dialogue with the state to craft meaningful policy that will address environmental risk while balancing American competitiveness and national security.

Syensqo's Partnership with the U.S. Department of Energy

We are a science company with a remarkable past, aiming to reinvent the future with our technologies, particularly in the emerging clean energy markets. In that vein, in October 2022, Syensqo was awarded a $178M grant from the Department of Energy (DOE) as part of an Infrastructure Investment and Jobs Act battery material funding program to produce a PVDF fluoropolymer production facility in Augusta, GA.[1] This facility has the potential to provide enough PVDF fluoropolymer to supply more than 5 million EV batteries per year at full capacity, and the project is expected to create more than 500 local

[1] *See https://www.energy.gov/sites/default/files/2022-10/DOE%20BIL%20Battery%20FOA-2678%20Selectee%20Fact%20Sheets%20-%201_2.pdf*

construction jobs and 100 highly-skilled jobs. Once fully operational, our project is an American investment that will fill a significant domestic supply gap with all major feedstocks, including fluorspar (a designated critical mineral), coming from North America. Our PVDF also finds its way into stationary energy storage applications, and are key to ensuring low cost and reliable storage are available to developers. Both of these applications are necessary for Minnesota to achieve the state's statutory goal of net-zero GHG emissions by 2050.

Our project is an American investment that will fill a significant domestic supply gap with all major feedstocks, including fluorspar (a designated critical mineral), coming from North America. As noted in the Biden Administration's June 2021 report on Executive Order 14017 "Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad Based Growth,"[2] PVDF is indispensable in the production of batteries as a cathode binder and separator coating material. The report further states that PVDF is a necessary component to the U.S. battery supply chain and a priority for increased investment.

Fluoropolymer Exemption

Syensqo actively promotes the continued responsible and safe manufacture, use and placement of products which are essential to U.S. industry and to the decarbonization of the global economy. We take the subject of PFAS very seriously,[3] and health and safety are Syensqo's top priorities.

We request that the MPCA exclude fluoropolymers from the scope of the regulation. This step would recognize the distinct differences in PFAS chemistries, particularly with respect to fluoropolymers which present low hazards to human health and the environment. These chemistries are vital to the critical industries that are the foundation of our sustainable future, including hydrogen-based energy, semiconductor manufacturing, EV batteries, and aerospace and defense applications. Some of the most important uses of fluoropolymers that Syensqo provides include:

- Critical solutions in electronic and hydraulic systems, exterior coatings and o-rings and gaskets for aerospace and defense applications.
- Cathode binders and separators in high-capacity lithium-ion batteries for electric vehicle applications. All lithium-ion batteries need PVDF in order to operate safely and effectively.
- Solar panels, hydrogen membranes, wind turbines and semiconductors, all of which rely on these products' specific properties.

Specifically, fluoropolymers are molecules that are inert, relatively large and have "documented safety profiles; are thermally, biologically, and chemically stable, negligibly

[2] http://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf
[3] For example, see Syensqo's recent settlement with the NJ Department of Environmental Protection, https://www.solvay.com/en/press-release/solvay-reaches-settlement-new-jersey-department-environmental-protection-pfas.

soluble in water, nonmobile, nonbioavailable, nonbioaccumulative, and nontoxic."[4] Due to these properties, many of these substances are unable to penetrate biological structures, are not water soluble, and do not transform into legacy PFAS, like PFOA and PFOS. Moreover, 96% of the commercially available fluoropolymer market meets the Organisation for Economic Co-operation and Development (OECD) definition of polymer of low concern (PLC).[5]

Over the last several years, Syensqo invested millions of dollars to advance our technology where we now produce all of our fluoropolymers in the U.S. without the use of fluorosurfactants. Fluorosurfactants are non-polymeric process aids that help ingredients work together in manufacturing some fluoropolymers and historically included PFOA and PFNA that are among the PFAS substances under the most intense spotlight. Syensqo was able to invent a next generation, more sustainable range of specialized fluoropolymers without the use of fluorosurfactants while keeping the unique properties of these products, as required for special applications.[6]

One of the biggest threats to Syensqo's ability to advance US competitiveness is regulatory uncertainty on PFAS. The U.S. Department of Defense recently highlighted this in their recent report on, "Report on Critical Per- and Polyfluoroalkyl Substance Uses."

> "PFAS are critical to DoD mission success and readiness and to many national sectors of critical infrastructure, including information technology, critical manufacturing, health care, renewable energy, and transportation…
>
> Emerging environmental regulations focused on PFAS are broad, unpredictable, lack the specificity of individual PFAS risk relative to their use, and in certain cases will have unintended impacts on market dynamics and the supply chain, resulting in the loss of access to mission critical uses of PFAS. These market responses will impact many sectors of U.S. critical infrastructure , including but not limited to the defense industrial base. Collectively, international and U.S. regulatory actions to manage PFAS' environmental impacts and identify and eliminate PFAS from the market, and the resulting market changes, pose risks to DoD operations and the defense industrial base supply chain. In addition, impacts to the global PFAS supply chain will present risks to the DoD Foreign Military Sales program and to North Atlantic Treaty Organization interoperability."[7]

The MPCA has an opportunity to recognize the fundamental differences in PFAS compounds, fluoropolymers' importance to critical product supply chains, and new innovations with fluoropolymer production technology. This will allow space to refocus on

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[4] *See Korzeniowski, S.H.; Buck, R.C.; Newkold, R.M.; El Kassmi, A.; Laganis, E.; Matsuoka, Y.; Dinelli, B.; Beauchet, S.; Adamsky, F.; Weilandt, K.; et al. A Critical Review of the Application of Polymer of Low Concern Regulatory Criteria to Fluoropolymers II: Fluoroplastics and Fluoroelastomers. Integr. Environ. Assess. Manag. 2023, 19, 326–354.*

[5] *Ibid.*

[6] *https://www.syensqo.com/en/innovation/pfas.*

[7] *See https://www.acq.osd.mil/eie/eer/ecc/pfas/docs/reports/Report-on-Critical-PFAS-Substance-Uses.pdf*

the potential threats that certain PFAS pose to human health, and how best to curtail the higher-risk routes that more problematic PFAS get into the environment.

Syensqo Comments on Manufacturer Reporting

Confidential Business Information (CBI)

Syensqo relies on strong confidentiality protections for our proprietary business information to maintain our competitiveness globally. As a fluoropolymer producer, our materials are found in a number of products critical to national security and in key supply chains for batteries, semiconductors, hydrogen fuel cells, and more. In many cases, the addition of one of Syensqo's materials is a key differentiating factor between competing articles in the marketplace. As such, our customers seek protections to ensure that this information is safeguarded not only from competitors, but also geopolitical adversaries.

It is vitally important that the MPCA develops a robust system to protect manufacturers' intellectual property as part of the implementation of this statute. Minnesota law recognizes the economic value of "trade secrets" as defined in the Minnesota Uniform Trade Secrets Act (§ 325C.01), and further requires that this information be treated as "nonpublic data" per the Minnesota Government Data Practices Act (§ 13.37).

Syensqo encourages the MPCA to allow respondents to claim that the information submitted as part of this reporting requirement are "trade secrets" and therefore considered non-public or confidential information. The process for which these claims are asserted and the appropriate steps for respondents to take should be thoroughly detailed in the final rulemaking. On the federal level, the EPA's management of CBI as required by the Toxic Substances Control Act provides an instructive model for the MPCA to consider (see: 40 CFR 711.30)

As the MPCA works to establish CBI protections for respondents, Syensqo recommends the following for consideration or to be included in a final rulemaking:

> *Duplicative State and Federal Reporting*:
> Moreover, the MPCA should be aware of the potential for the information which it will be requesting may be duplicative to the U.S. Environmental Protection Agency's TSCA Section 8(a)(7) reporting rule as modified by the 2020 National Defense Authorization Act. Currently, the EPA is conducting a major reporting exercise to gather data on all PFAS materials – and articles that contain PFAS – that were imported or manufactured since 2011. At the conclusion of this data-gathering it is understood that the information will have a level of public accessibility.
>
> Syensqo encourages the MPCA to take steps to ensure that respondents are not required to duplicate efforts to report on a state and federal level by delaying this rulemaking until the information required by the EPA is available for consumption.

Should the MPCA require more information than what is being required by the EPA, this rulemaking should be crafted to address that information gap.

Data Protection:
Syensqo requests that the MPCA refrain from sharing the data gathered through this rulemaking with any other states or third-party organizations without the proper measures to maintain trade secrets protections. If MPCA wishes to engage in a data sharing agreement, the details of such agreement should be subject to public review and a comment period for an appropriate period of time.

Moreover, the MPCA should establish within the rulemaking the system by which a respondent is able to be notified of a disclosure of their submission which contains a trade secret both within and outside the state. This would be consistent with current Minnesota law (§ 115.A.06), "when data is classified private or nonpublic pursuant to this subdivision the commissioner may: (1) use the data to compile and publish analyses or summaries and to carry out the commissioner's statutory responsibilities in a manner which does not identify the subject of the data; or (2) disclose the data when the commissioner is obligated to disclose it to comply with federal law or regulation but only to the extent required by the federal law or regulation. (b) The subject of data classified as private or nonpublic pursuant to this subdivision may authorize the disclosure of some or all of that data by the commissioner."

Joint Submission Option:
MPCA should consider implementing a "joint reporting" system to aid manufacturers and chemical suppliers be compliant while addressing CBI needs and the lack of information at certain points in the supply chain. Specifically, the process as described by the EPA in their recently released final rulemaking for TSCA 8(a)(7) would be a favorable model to emulate.[8] This system would enable respondents to submit all pertinent information to extent it is known or reasonably ascertainable to them while sending a request to their suppliers to provide confidential information directly to supplement as a "secondary submitter." This system does not force suppliers to disclose confidential information to their customers, therefore maintaining CBI protections between both parties.

Data and Report Formatting:
The statute instructs the MPCA to collect, "the amount of each PFAS, identified by its chemical abstracts service registry number" and, "a brief description of the product, including a universal product code (UPC), stock keeping unit (SKU), or other numeric code assigned to the product." Syensqo requests that the MPCA allow respondents to use alternatives to chemical abstracts service registry (CAS)

[8] See *https://www.federalregister.gov/documents/2023/10/11/2023-22094/toxic-substances-control-act-reporting-and-recordkeeping-requirements-for-perfluoroalkyl-and#:~:text=116%E2%80%9392%2C%20section%207351),to%20report%20information%20described%20in*

numbers, specifically the unique five-digit accession number (ACCNO) and a generic chemical name for each confidential chemical identity on the TSCA Inventory. Accession numbers are a key mechanism for industry and government to collaborate on chemical policy while maintaining sensitive and proprietary information secure.

Furthermore, in many cases, an UPC or an SKU may not be available for respondents and the available uniquely identifying information is considered a "trade secret," e.g. the combination of material grade and customer. The MPCA should provide respondents the flexibility to generate or be assigned a unique numeric code in lieu of an UPC or SKU.

Syensqo Comments on Manufacturer Fees

MPCA's approach to collecting fees should reasonably reflect the actual costs of administering the product notification program, consistent with Minnesota Session Law – 2023, chapter 60, article 3, section 21, (Minnesota Statutes 116.943) subdivision 6, and should result in an equitable fee structure. It is challenging to evaluate potential approaches to a fee structure without a more detailed forecast of MPCA's costs. Below are some preliminary thoughts to consider, and we look forward to a more detailed cost analysis accompanying the proposed rule.

1. *Should the Agency consider tiered fees for different sizes of business?*

Syensqo does not support tiered fees for different sizes of businesses. A manufacturer with a limited number of reporting obligations should not pay more than a relatively smaller company with a larger number of reporting obligations. Said differently, a manufacturer should not be disproportionately burdened or subsidized by virtue of the size of the business.

2. *Should the Agency consider a per-product or per-company fee?*

Syensqo does not believe a per-company fee is equitable for the reasons mentioned in Question 1. Syensqo recommends a relatively higher fee for a manufacturer's first three submissions and a reduced fee for any additional filings. This approach would account for what we expect to be the Agency's costs during the reporting process, the largest of which we anticipate to be the reviewing process. Single submissions for a group of products in a category-based submission should be treated as a single submission for the purpose of calculating fees and any subsequent deliberations for the agency concerning potential risks to human health and the environment.

3. *Should the Agency consider a per-PFAS or PFAS amount fee?*

Syensqo does not support a per-PFAS or amount fee. The type of PFAS and amount would not increase or decrease administrative costs associated with reporting. Should

the agency choose to pursue either option, the fee amount should only be based on intentionally added PFAS.

4. Are there other state program fee structures on which the Agency should model the fees?

Syensqo does not have a recommendation in response to this question at this time, but urges caution when determining whether or not to use another state's fee structure as a model for this program, as this requirement is unprecedented in scope and size.

5. Should the Agency consider a fee to be paid when updates to information on previously reported products are submitted? (e.g., decreased amounts of elimination of one or more PFAS).

Syensqo does not support the Agency levying a new fee when a manufacturer provides an update. Any updates to the amount of PFAS in a product would unlikely create any new work. Additionally, updating a decrease or elimination of PFAS in a previously reported product would reduce the Agency's burden. Requiring a fee for reporting a decrease or elimination of PFAS in a product could disincentivize reducing or eliminating PFAS in a product. In either case, we do not support a fee.

Other issues related to reporting or fees not covered in the questions:

MPCA should better understand the cost of administering the program before a fee rule can be developed. MPCA should be transparent about the revenue needed to manage such a program and determine fees based on those costs. Fees must be determined in a manner to where they are only collecting what is needed to manage the program. We request MPCA publish a publicly available annual audit of fees collected and administrative costs associated with the program.

Thank you for the opportunity to provide comments. If you have any questions, please do not hesitate to contact me.

Very truly yours,

David A. Cetola
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December 19, 2024

ELECTRONICALLY FILED VIA MINNESOTA OAH PORTAL

Katrina Kessler, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Re: **Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per- and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828**

Dear Commissioner Kessler:

The Chemical Users Coalition ("CUC") is providing the enclosed comments in response to the Minnesota Pollution Control Agency's Request for Comments on planned new rules for PFAS reporting.

CUC is an association of companies from diverse industries that are interested in chemical management policy from the perspective of those who use, rather than manufacture, chemical substances.[1] CUC encourages the development of chemical-regulatory policies that protect human health and the environment while simultaneously fostering the pursuit of technological innovation. Aligning these goals is particularly important in the context of chemical management policy in a global economy.

The CUC appreciates your consideration of these comments. If you have any questions relating to this submission, please feel free to contact me.

Sincerely,

Judah Prero

Enclosure

[1] The members of CUC are Airbus S.A.S., The Boeing Company, Carrier Corporation, HP Incorporated, IBM Company, Intel Corporation, Lockheed Martin Corporation, National Electrical Manufacturers Association, RTX Corporation, Sony Electronics Inc., and TDK U.S.A. Corporation.

Before the
Minnesota Pollution Control Agency
Request for Comments
Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828
ID Number R-4828

Comments of the Chemical Users Coalition

The Chemical Users Coalition ("CUC") appreciates the opportunity to provide our comments on the Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (the "Planned Rule") that will be promulgated by the Minnesota Pollution Control Agency (the "MPCA" or the "Agency") pursuant to Minnesota Statutes 116.943, subdivision 2 ("Amara's Law"). CUC is an association of companies from diverse industries that are interested in chemical management policy from the perspective of those who use, rather than manufacture, chemical substances.[1] CUC encourages the development of chemical regulatory policies that protect human health and the environment while simultaneously fostering the pursuit of technological innovation. Aligning these goals is particularly important in the context of chemical management policy in a global economy. CUC Members have been actively engaged with federal and state regulators on PFAS-related legislation and regulation.

CUC submitted comments in response to the September 25, 2023, Notices of Request for Comments (attached). CUC appreciates that MPCA will consider those comments. However, CUC wanted to take this opportunity to highlight specific issues that are of utmost importance to our members.

- **Maintaining Uniformity and Avoiding Duplication of Efforts** - CUC requests that the MPCA carefully consider the importance of maintaining uniformity of regulation from state to state. Specifically, the MPCA should carefully learn from the experience with Maine's Act To Stop Perfluoroalkyl and Polyfluoroalkyl Substances Pollution. Collaboration with Maine is encouraged, so that Maine's experience can aid the MPCA in crafting a rule that is workable and achieves stated policy objectives. Additionally, as the United States Environmental Protection Agency ("EPA") has promulgated a rule that mandates the reporting of PFAS related information, the MPCA should use the data gathered under that effort to the greatest degree possible before mandating any new data collection. At a minimum, the MPCA should waive reporting for any entity that already reported information to EPA.

- **The Definition of "PFAS"** - Amara's Law currently defines "Intentionally added" PFAS as "PFAS deliberately added during the manufacture of a product where the continued presence of PFAS is desired in the final product or one of the product's components to perform a specific function." CUC

[1] The members of CUC are Airbus S.A.S., The Boeing Company, Carrier Corporation, HP Incorporated, IBM Corporation, Intel Corporation, Lockheed Martin Corporation, National Electrical Manufacturers Association, RTX Corporation, Sony Electronics Inc., and TDK U.S.A. Corporation.

recommends that the MPCA clarify that the definition does not include manufacturing byproducts and impurities that might be unintentionally present in a product in commerce, PFAS degradants that might be formed during product manufacturing but also be considered unintended components, and PFAS that is reasonably believed to be present in the final product as a contaminant.

Additionally, CUC requests that the MPCA establish a threshold (e.g., de minimis) level for PFAS content in manufactured articles, beneath which level no reporting would be required (such as PFAS present at 0.1% by product weight or greater). The de minimis level of 0.1% is practical and is generally understood by the manufacturers and distributors of manufactured articles that move among various international markets because the level aligns with the level imposed in European Union for substances of very high concern when present in articles.

Furthermore, CUC recommends MPCA focus first on PFAS which are known to be of greater risks before moving on to lower risk PFAS, such as fluoropolymers. A phased-in approach allows the MPCA to assess the efficacy of the program and resources needed, and to make needed adjustments incrementally.

- **The Definition of "Manufacturer"** - Amara's Law defines "Manufacturer" as "the person that creates or produces a product or whose brand name is affixed to the product." There are circumstances when two different entities meet that definition: one may manufacture the product and the other may legally affix their name to the product. In such a circumstance, it is not clear who the "manufacturer" is and therefore which entity has the notification requirement. Furthermore, many companies have subsidiaries, and it is not clear which entity would be considered the "manufacturer." The Agency should clarify with the greatest degree of specificity possible which entity has the primary obligation to report.

- **The Definition of "Product Component" -** Amara's Law defines "product component" as "an identifiable component of a product, regardless of whether the manufacturer of the product is the manufacturer of the component." The MPCA needs to clarify the intent behind the "identifiable components." In a complex manufactured item, such as a fabricated product known as an 'article,' many components are not visible due to the manner in which the product is assembled. Additionally, often individual components are assembled from other distinct components. It is not clear as to what "identifiable" means in this context. Articles are particularly challenging, as downstream users are often separated by multiple layers in the supply chain, and thus may not be aware of the presence of PFAS-containing parts or components. Given the broad definition of PFAS in the law, it will be imperative to protect downstream users of articles against the undisclosed presence of PFAS by an upstream supplier. CUC strongly recommends that *safe harbor* provisions be granted to downstream users of articles and sufficient time be granted in the event of subsequent discovery of PFAS.

- **Product Descriptions** - Amara's Law provides that the notification must include a description of the product. CUC requests greater clarity as to what is meant by "a description." Does it refer to common distinctions such as consumer use vs. commercial use; or for retail distribution vs. for wholesale distribution; or into product categories such as toy/consumer electronic/furniture etc.? Would it also include (as a requirement) the principal intended uses of the product? CUC recommends that MPCA define a reasonable level of standardization for the elements of the "description."

Additionally, Amara's Law provides that a description of the product, including a UPC, should be reported. The MPCA should take into consideration the amount of time/resources required to report based on UPC. Furthermore, UPC are not used in all manufacturing sectors, such as aerospace and defense. A more generic classifier (such as those based on product category) is preferable. The MPCA should consider use of alternative code systems, including the Harmonized Tariff Schedule ("HTS"), which is widely used around the world. HTS will not, however, be an adequate replacement for all products since it is not required for products shipped domestically within the U.S. and manufacturers therefore may not have this data readily available. An HTS determination is a complex process that requires detailed knowledge of both product and tariff schedule.

- **Confidential Information -** CUC asks that the MPCA recognize that PFAS content could be classified as "Confidential Business Information" ("CBI"). To address the situation where PFAS content information cannot be obtained from a supplier due to CBI, trade secret, or non-responsiveness concerns, CUC suggests that the MPCA authorize and implement an optional joint submission system. Such a system would allow manufacturers to submit their suppliers' contact information when such suppliers were reluctant to provide chemical substance information to the customers due to confidentiality concerns. The system would directly contact the upstream suppliers so that those suppliers could submit the needed information directly to the state. The duty to report would then lie with the suppliers, and the reporting manufacturers would have fulfilled their notification obligation by providing the supplier contact information.

  The MPCA must address situations where disclosure of PFAS content may be prohibited due to national security interests and Department of Defense concerns. Aside from addressing methods of disclosing such information, if not exempted, the MPCA must address whether or not a submission that does not disclose all PFAS related information due to these concerns is considered complete and therefore in compliance with the law.

- **PFAS Content** – The MPCA should follow the lead of the State of California and delay enforcement of any restriction or reporting requirements based on the presence of PFAS until the MPCA develops an accepted testing methodology for determining PFAS content. It must then allow for the regulated community to become familiar with and use such testing methodology and for laboratories to become familiar with the methodology and ensure sufficient testing capacity is available before enforcing any such requirement or restriction.

- **Fees -** CUC recommends that fees, if they must be imposed, should be assessed per each reporting entity or product group instead of by individual product.

Conclusion

CUC appreciates the opportunity to submit the foregoing comments and reserves its right to submit additional or modified comments at a later date. We would welcome the opportunity to meet with the MPCA staff to address our comments and to assist in crafting implementing rules.

Before the
Minnesota Pollution Control Agency
Request for Comments
Planned New Rules Governing Reporting by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

Comments of the Chemical Users Coalition

The Chemical Users Coalition ("CUC") appreciates the opportunity to provide our comments on the Planned New Rules Governing Reporting by Manufacturers Upon Submission of Required information about Products concerning PFAS (the "Planned Rule") that will be promulgated by the Minnesota Pollution Control Agency (the "MPCA" or the "Agency") pursuant to Minnesota Statutes 116.943, subdivision 2 ("Amara's Law"). CUC is an association of companies from diverse industries that are interested in chemical management policy from the perspective of those who use, rather than manufacture, chemical substances.[1] CUC encourages the development of chemical regulatory policies that protect human health and the environment while simultaneously fostering the pursuit of technological innovation. Aligning these goals is particularly important in the context of chemical management policy in a global economy. CUC Members have been actively engaged with federal and state regulators on PFAS-related legislation and regulation.

The MPCA, in the Request for Comments, specifically requested comments on the following questions:

1) Are there definitions in subdivision 1 for which clarification would be useful to understanding reporting responsibilities?
2) Are there terms or processes in subdivision 2 for which clarifications will help reporting entities determine reporting status or data-gathering process?
3) How should the MPCA balance public availability of data and trade secrecy as part of the reporting requirements?
4) Are there any terms used in subdivision 3 that should be further defined or where examples would be helpful?
5) Are there specific portions of the reporting process that should not be defined through guidance or the development of an application form?
6) Other questions or comments relating to reporting or the process of reporting.

CUC appreciates the MPCA's efforts to gather information and identify issues on reporting prior to issuing a draft rule implementing the reporting requirements. We are providing comments on a question-by-question basis in the more detailed comments below. We also have these general comments as well.

CUC recommends that the MPCA consider a "phased in" approach whereby different product categories are considered for initial reporting on the basis of the category's likelihood to cause contamination of the environment in Minnesota. This "staggered reporting" approach will allow for both MPCA and the regulated

[1] The members of CUC are Airbus S.A.S., The Boeing Company, Carrier Corporation, HP Incorporated, IBM Company, Intel Corporation, Lockheed Martin Corporation, National Electrical Manufacturers Association, RTX Corporation, Sony Electronics Inc., and TDK U.S.A. Corporation.

community to adjust to the new requirements and learn from any implementation issues that arise. It will reduce reporting and administrative burdens on both the entities subject to the final regulations and MPCA personnel. It will also allow for more orderly and complete reporting.

CUC recommends that the MPCA consider collaborating with agencies in other states where similar PFAS reporting requirements are being implemented. Subdivision 3 of Amara's Law clearly grants MPCA that ability, and to consider information and technology sharing efforts to do so. When states have laws and regulations which are harmonized, it ensures a level playing field and consistency across different regions. If each state has drastically different laws, it can create barriers to trade and increase costs for businesses operating across state lines. By regulating in a similar fashion, states can facilitate the smooth flow of data and regulated goods, services, and investments between different regions. Furthermore, when regulations are consistent, it becomes easier for businesses to comply with them, as they do not have to navigate a complex web of varying rules and requirements in different states. It also simplifies enforcement efforts for regulatory agencies, allowing them to allocate resources more effectively. Lastly, when states regulate in a similar fashion, it promotes collaboration and learning among policymakers. States can share best practices, lessons learned, and successful regulatory approaches, leading to better-informed decision-making. This collaboration can enhance regulatory effectiveness, foster innovation, and create a collective knowledge base that benefits all states.

CUC therefore requests that the MPCA carefully consider the importance of maintaining uniformity of regulation from state to state. Specifically, the MPCA should carefully learn from the experience with Maine's Act To Stop Perfluoroalkyl and Polyfluoroalkyl Substances Pollution. Collaboration with Maine is encouraged, so that Maine's experience can aid the MPCA in crafting a rule that is workable and achieves stated policy objectives.

In addition, although the MPCA current solicitation of comments relates solely to Amara's Law reporting requirements, CUC urges the MPCA to initiate as soon as possible its planning for how it will determine whether the use of PFAS in a product is a "currently unavoidable use" that will be exempt from the 2032 prohibition on any product containing intentionally added PFAS. It is important that stakeholders have an opportunity to provide input on this aspect of Amara's Law and for the MPCA to provide clear guidance on the procedures that will be followed and the substantive criteria that will be applied.

The following are CUC's responses to the specific topics on which the MPCA requested input.

1) **Are there definitions in subdivision 1 for which clarification would be useful to understanding reporting responsibilities?**

- Amara's Law currently defines "Intentionally added" PFAS as "PFAS deliberately added during the manufacture of a product where the continued presence of PFAS is desired in the final product or one of the product's components to perform a specific function." CUC recommends that the MPCA clarify that the definition does not include manufacturing byproducts and impurities that might be unintentionally present in a product in commerce, PFAS degradants that might be formed during product manufacturing but also be considered unintended components, and PFAS that is reasonably believed to be present in the final product as a contaminant.

- Amara's Law defines "Manufacturer" as "the person that creates or produces a product or whose brand name is affixed to the product." There are circumstances when two different entities meet that definition: one may manufacture the product and the other may legally affix their name to the product. In such a circumstance, it is not clear who the "manufacturer" is and therefore which entity has the notification requirement. The Agency should clarify which entity has the primary obligation to report.

- Amara's Law defines "product component" as "an identifiable component of a product, regardless of whether the manufacturer of the product is the manufacturer of the component." The MPCA needs to clarify the intent behind the "identifiable components." In a complex manufactured item, such as a fabricated product known as an 'article', many components are not visible due the manner in which the product is assembled. Additionally, often individual components are assembled from other distinct components. It is not clear as to what "identifiable" means in this context. Articles are particularly challenging as downstream users are often removed by multiple layers in the supply chain, thus may not be aware of the presence of PFAS-containing parts or components. Given the broad definition of PFAS in the law, [predicated on a structural definition,] it will be imperative that downstream users of articles are protected against the undisclosed presence of PFAS by an upstream supplier. CUC strongly recommends that *safe harbor* provisions be granted to downstream users of articles and sufficient time be granted in the event of subsequent discovery of PFAS.

2) Are there terms or processes in subdivision 2 for which clarifications will help reporting entities determine reporting status or data-gathering process?

- Many companies provide products to downstream distributors/resellers, in which case the companies have ultimately no control as to when and where the products ultimately are distributed/sold. Consequently, CUC requests the effective date for reporting be based on the manufacture date so that previously manufactured products are exempt from the reporting (and prohibition) requirements.

- CUC recommends that the MPCA clarify how the notification requirements apply to multiple businesses in the supply chain for finished products that will be distributed with multiple PFAS-containing components. The MPCA must make it sufficiently clear whether the responsibility falls upon the maker of the PFAS-containing components, the brand owner, a brand licensee, an importer, or the company that is distributing the finished product when multiple parties fit into the definition of manufacturer.

- Amara's Law provides that the notification must include a description of the product. CUC requests greater clarity as to what is meant by "a description." Does it refer to common distinctions such as consumer use vs. commercial use; or for retail distribution vs. for wholesale distribution; or into product categories such as toy/consumer electronic/furniture etc.? Would it also include (as a requirement) the principal intended uses of the product? CUC recommends some level of standardization for the elements of the "description."

- Amara's Law provides that a description of the product, including a UPC, should be reported. The MPCA should take into consideration the amount of time/resources required to report based on UPC. A more generic classifier (such as those based on product category) is preferable. The MPCA should consider use of alternative code systems, including the Harmonized Tariff Schedule ("HTS"), which is widely used around the world. HTS will not, however, be an adequate replacement for all products since it is not required for products shipped domestically within the US and manufacturers therefore may not have this data readily available. An HTS determination is a complex process that requires detailed knowledge of both product and tariff schedule.

- The MPCA must recognize that manufacturers may not know if PFAS is contained in the products they sell. Testing all products to determine if PFAS is in the product is not viable or even possible. Consequently, many manufacturers will be turning to component suppliers (who will in turn also ask their upstream suppliers) for information concerning PFAS content. First, CUC asks that the MPCA adopt a reasonability standard for determining if any obligation to report exists. If a manufacturer can

reasonably ascertain, via documentation or supplier communications, that PFAS is present in the product, they have an obligation to report. If a manufacturer cannot reasonably ascertain whether or not a product contains PFAS, the rule should state that a manufacturer has no obligation to report. Furthermore, even with due diligence, manufacturers may only be notified concerning the presence of PFAS in their products after the notification deadline has passed. CUC recommends that the MPCA adopt a safe harbor provision (or equivalent) to protect downstream users against post-deadline discovery of PFAS. CUC asks that manufacturers not be penalized in such cases as long as the manufacturers have made a good faith effort to reasonably ascertain the use of PFAS prior to selling the product into Minnesota after the effective date. Further, CUC members seek protection for the sell-through of OEM parts for use as replacement and spare parts, of original design and origin. Article manufacturers work within complex supply chains composed of potentially thousands of suppliers, and it is anticipated that some time and resources will be needed for upstream suppliers to become aware of the use of PFAS. Additionally, certain upstream suppliers may claim that information related to the specific type and amount of PFAS substance(s) used are trade secrets and cannot be disclosed.

- Similar to the above, manufacturers may not know the purpose for which PFAS is added, and therefore would not be able to report on such information. CUC recommends that the "reasonability" standard discussed above apply as well to this reporting element.

- Amara's Law provides that notifications are required for products sold, offered for sale, or distributed in the state. CUC recommends that the MPCA exempt previously manufactured products (existing stocks produced before the final rule's effective date), and spare/replacement parts for existing products. These parts often are not newly manufactured. Rather, when a new product is manufactured, spare and replacement parts are manufactured and maintained in accordance with either contractual or regulatory requirements so that the product can be continuously used and need not be replaced solely because a replacement part is not available. If these parts are not newly manufactured, it may be difficult for the entity selling the parts in Minnesota to ascertain PFAS content due to the lapse of time since manufacture. The availability of spare/replacement parts would also allow for the continued use and maintenance of existing products, thereby preventing the accumulation of unnecessary waste including e-waste.

- Amara's Law requires that the notification contain the amount of each PFAS by name and CAS number. CUC has significant concern with this requirement. Amara's Law presumes that it is possible to identify all PFAS in a product. At this time, testing is not available to specifically identify all PFAS. Consequently, the only other way to ascertain PFAS content is from suppliers. However, if PFAS content information – such as the CAS number of the specific PFAS in the product and the amount contained – cannot be obtained from others, due to trade secret concerns or simply refusal to cooperate, a manufacturer will not be able to provide the required notification. CUC recommends that the MPCA address this extremely likely scenario. Utilizing a "reasonability" standard, as discussed earlier, is an option the MPCA should seriously consider, and it should be within the MPCA's discretion to provide such clarification and guidance. Additionally, CUC suggests that the rule allow for reporting the amount of PFAS either by concentration or by weight. The same components which contain PFAS can be used in multiple products, and that would result in different PFAS concentrations in the overall product. To simplify reporting, we believe that both options be made available.

- Should the MPCA allow reporting by concentration, CUC suggests that the MPCA establish a concentration range for PFAS reporting, similar to that used by the IC2 High Priority Chemicals Data System (HPCDS) for Oregon Toxic-Free Kids Act (TFKA) and the Washington Children's Safe Products Act (CSPA). Using such a construct, all products that are the same type / model (under the

same Harmonized Tariff Schedule Code) containing the same PFAS within the same concentration range established by the MPCA could be grouped together for reporting instead of individual product reporting.

- CUC also recommends that manufacturers be allowed to report on PFAS content on the basis of information obtained from suppliers, as opposed to relying exclusively on analytical methods. CUC recommends that the MPCA make clear that manufacturers may reasonably rely on information provided by their suppliers, provided they can document that inquiries have been made to suppliers and reasonable efforts have been made to obtain information regarding the use of PFAS.

- Amara's Law sates that the quantity of PFAS be reported using "commercially available analytical methods." That term is not defined. CUC recommends that the term be clarified to only include methods that have been "validated" by at least one federal and state regulatory authority (e.g., US EPA) in addition to being commercially available.

- CUC recommends that the MPCA clarify how it will expect the reporting entities to calculate ranges for the amount of PFAS that will be reported for products.

- CUC recommends that PFAS content in packaging should not be subject to the reporting requirement. This adds another layer of complexity, as packaging may also be manufactured through multiple value chain layers and obtaining PFAS content information may prove to be challenging.

- Amara's Law provides that information submission is required whenever there is a "significant change in the information." CUC recommends that the MPCA define this term. Right now, the requirement could be read such that changes in company personnel or their contact information at a particular reporting entity could trigger a notification of a "significant change." The identity of corporate officers and directors, as well as their contact information, can change frequently, and requiring notification for each such occurrence is burdensome and should not be considered a "significant" change.

  In addition, the removal of a PFAS could also be a trigger for a "significant change" notification. These types of changes are not pertinent to what CUC understands to be the underlying policy objectives of the reporting requirements (i.e., to identify products that contain PFAS and to identify which PFAS are contained in products). CUC suggests that the MPCA should minimize unnecessary reporting such as these changes. Thus, CUC recommends that the definition of "significant change" should not include the removal of a specific PFAS or a change in responsible official or contact information. CUC recommends that there be an option to provide notification of the removal of PFAS, but that such notification should be voluntary. CUC recommends that a "significant change" should be defined as the addition of one or more PFAS not previously reported or the material increase (i.e., one which reflects an increase of at least 10% by weight or greater) in the concentration of a previously reported PFAS that is present in a product. Notification of the removal of PFAS content or an immaterial increase or decrease should not be required.

3) How should the MPCA balance public availability of data and trade secrecy as part of the reporting requirements?

- It is anticipated that the state of Maine will start receiving notifications on PFAS content in products in January 2025. CUC recommends that such information submitted in Maine should be considered publicly available information for purposes of waiving the information submission requirements.

- CUC asks that the MPCA recognize that PFAS content could be classified as "Confidential Business Information" ("CBI"). To address the situation where PFAS content information cannot be obtained from a supplier due to CBI, trade secret, or non-responsiveness concerns, CUC suggests that the MPCA authorize and implement an optional joint submission system. Such a system would allow manufacturers to submit their suppliers' contact information when such suppliers were reluctant to provide chemical substance information to the customers due to confidentiality concerns. The system would directly contact the upstream suppliers so that those suppliers could submit the needed information directly to the state. The duty to report would then lie with the suppliers, and the reporting manufacturers would have fulfilled their notification obligation by providing the supplier contact information. Further, CBI protection may be necessary for national security interests and Department of Defense concerns.

4) Are there any terms used in subdivision 3 that should be further defined or where examples would be helpful?

- CUC requests additional clarification on the waiver process. First, the MPCA should provide guidance on what constitutes "substantially equivalent information." The MPCA should set forth in detail the procedures for requesting and issuing waivers, including expected timelines for the waiver processing, and the expected timing required for the MPCA to answer waiver requests. The regulations also should provide that information submission is not required during the period when a waiver request is being processed. CUC also requests that waivers not be limited to instances where "substantially equivalent information is publicly available." CUC also recommends that the MPCA exercise its discretion to issue procedural regulations to allow manufacturers to request full or partial waivers (or extensions of time for notification submission) for other reasons, including because manufacturers may not receive specific information in regards to the PFAS used in their products for a variety of reasons (including proprietary reasons, etc.).

- The waiver provision provides that the MPCA may waive requirements for reporting multiple products or a product category. CUC recommends that a rule contain details concerning the process for proposing a category for reporting multiple products. Aside from the procedural elements of how a manufacturer formally proposes a category, the MPCA should elaborate on the criteria the Agency will use to determine whether the proposed category is reasonable.

- Products used for national security, space exploration, and defense purposes for which PFAS may be added should be categorically excluded or waived. CUC members that build and sell into this sector, often do not own or control the design criteria for new, replacement and spare parts.

5) Are there specific portions of the reporting process that should not be defined through guidance or the development of an application form?

- CUC believes that detailed guidance is needed for all aspects of reporting to ensure the process is predictable, open, and transparent and compliance is achieved with the least burden possible.

6) Other questions or comments relating to reporting or the process of reporting.

- The definition of PFAS used in Amara's Law is expansive and inclusive of a significant number of substances. Consequently, compliance with the requirements can be challenging, as many substances are implicated and for most there are no testing methodologies that can be used to identify them. Therefore, CUC recommends that the MPCA create a list of specific PFAS that are of concern for

health or environmental effects and require reporting only on products containing the listed PFAS.[2] Such a list should include the Chemical Abstract Services Registry Number and the specific chemical identity using CAS nomenclature for each substance for which reporting is required. The use of CAS numbers enables businesses throughout the value chain and across global marketplaces to understand which substances must be entities for reporting purposes.

- Furthermore, CUC requests that the MPCA establish a threshold (e.g., de minimis) level for PFAS content in manufactured articles, beneath which level no reporting would be required (such as PFAS present at 0.1% by product weight or greater). The de minimis level of 0.1% is practical and is generally understood by the manufacturers and distributors of manufactured articles that move among various international markets because the level aligns with the level imposed in European Union for substances of very high concern when present in articles.

- Under Subdivision 4, the MPCA has the authority to require testing. If the MPCA does require companies to provide test results, the MPCA should specify the test method to use. There are no internationally recognized test methods for "PFAS" in complex articles; therefore, CUC anticipates it will be very difficult to provide test results to the MPCA. Only a select number of PFAS substances are capable of being tested.

- Amara's Law states that if testing demonstrates that a product contains intentionally added PFAS, testing results and information must be provided. It is not clear how testing demonstrates that the PFAS was indeed intentionally added. The MPCA must provide guidance on how MPCA will make a determination based on testing that a PFAS is intentionally added and how such determination can be challenged.

- Duplicative reporting (submitting the same report to multiple jurisdictions) should be avoided. CUC encourages the use of a single system (such as IC2) that can be used by multiple states for reporting purposes and to increase transparency among the states that have reporting requirements.

Fees

- CUC acknowledges that the MPCA has requested comments on proposed fees as well. CUC recommends that fees, if they must be imposed, should be assessed by each report or product group instead of by individual product.

Conclusion

CUC appreciates the opportunity to submit the foregoing comments and reserves its right to submit additional or modified comments at a later date. We would welcome the opportunity to meet with the MPCA staff to address our comments and to assist in crafting implementing rules.

[2] See, for example, The European Chemicals Agency Forum for Exchange of Information on Enforcement *"Advice on PFAS restriction proposal,* "To help enforcement authorities, the Forum suggests the developing of an indicative list of PFAS in a future guidance (with the chemical structure) covered by the restriction."

RECEIVED
By: OAH on 12/19/2024

Bill Erny Attachment

December 19, 2024

Submitted to Office of Administrative Hearings via Rulemaking eComments:
https://minnesotaoah.granicusideas.com/

Quinn Carr
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Re: REQUEST FOR COMMENTS: Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per- and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828; OAH Docket No. 23-9003-40410

The RV Industry Association (RVIA) appreciates the opportunity to comment on the Minnesota Pollution Control Agency (MPCA) Request for Comment on the PFAS in Products Reporting and Fee Rule. This rule will require manufacturers to report information to MPCA on products sold, offered for sale, or distributed in the state which contain intentionally added PFAS, and would establish a fee structure for required reporters.

RVIA is the national trade association representing over 500 manufacturers and component and aftermarket suppliers who together build more than 98 percent of all RVs produced in the United States – including motorhomes, travel trailers, fifth-wheel travel trailers, folding camping trailers, park model RVs, and truck campers. The RV industry contributes more than $140 billion annually to the national economy and $3 billion to the Minnesota state economy each year. The RV industry is an American-made industry that supports 680,000 jobs paying more than $48 billion in wages[1]. In Minnesota the RV industry supports 15,120 jobs and $827 million in wages.

Definitions

Following is a list of some of the critical definitions used in the reporting rule. RVIA offers the following edits in **bold** *italics*, which are intended for clarity and consistency with federal and other state requirements. Clarity of definitions is important to ensure the regulated community understands exactly what data MPCA is seeking and from whom.

[1] The Association is the unifying force for promoting safety and professionalism within the RV industry, and works with policymakers, government agencies, as well as recognized national standards-setting bodies, to promote and protect the RV industry.

> **"Carpet or rug"** means a fabric marketed or intended for use as a floor covering ***for commercial, industrial, or residential buildings that contain intentionally added PFAS.***
>
> **"Fabric treatment"** means ***an aftermarket*** substance applied to fabric to give the fabric one or more characteristics, including but not limited to stain resistance or water resistance. ***Fabric treatment does not include processes or treatments applied during the manufacture of a product.***
>
> **"Intentionally added"** means PFAS deliberately added ***to a product or one of its product components to provide a specific characteristic, appearance, or quality or*** to perform a specific function. ***Intentionally added PFAS does not include degradation by-products of PFAS within the product or its components. Products containing intentionally added PFAS include products that consist solely of PFAS. Intentionally added PFAS does not include PFAS that is present in the final product as a contaminant.***
>
> **"Perfluoroalkyl and polyfluoroalkyl substances" or "PFAS"** means ***nonpolymeric perfluoroalkyl and polyfluoroalkyl substances that are a group of man-made chemicals that contain at least 2 fully fluorinated carbon atoms, excluding gases and volatile liquids. "PFAS" includes PFOA and PFOS.***
>
> **"Product"** means an item manufactured, assembled, packaged, or otherwise prepared for sale to consumers, including but not limited to its product components, sold, or distributed for personal, residential, commercial, or industrial use, including for use in making other products. ***For complex durable goods, "product" would encompass the complete product such as a complete vehicle.***

As far as the term, "complex durable goods", RVIA recommends that MPCA adopt the following definition which is similar to that outlined in Section 6 of the Toxic Substances Control Act (TSCA) and is being considered in other jurisdictions.

> ***"Complex durable goods" means a consumer product that is a manufactured good composed of 100 or more manufactured components, with an intended useful life of 5 or more years, where the product is typically not consumed, destroyed, or discarded after a single use, including its component parts and service items."***
>
> **"Upholstered furniture"** means an article of furniture that is designed ***to be used inside or outside of a building*** for sitting, resting, or reclining and that is wholly or partly stuffed or filled with any filling material.

<u>High-Risk PFAS Chemicals</u>

MPCA should focus its reporting on PFAS chemicals that are of known concern based on the current available science and data, excluding those that have been determined to be of low

concern. For example, MPCA should exclude substances with low-risk profiles, including fluoropolymers. These types of chemicals have high molecular weight, low levels of residual monomer, and do not degrade easily under normal conditions of use. Other categories to be excluded would be chemicals used for research and development, de minimis levels of PFAS, low volume service chemicals, refrigerants, and other categories identified as having low exposure potential.

Recreational Vehicle Manufacturers and Aggregate Reporting

While RVIA supports the goal of Minn. Stat. § 116.943 Subd.2 for collecting information on products sold in the state that contain intentionally added PFAS, the most effective way to obtain the necessary information is to focus on the upstream manufacturers of the specific items that contain intentionally added PFAS. For example, RV manufacturers purchase hundreds of individual parts, components and subassemblies from third parties that are assembled at the RV manufacturing facility to develop a final product, a Recreational Vehicle. Due to the complex and unique nature of RV manufacturing processes and the RV supply chain, RV manufacturers are not the best positioned to provide the necessary information. Therefore, RV manufacturers should be excluded from reporting under the Minnesota Reporting requirement if they themselves have not intentionally added PFAS as part of the final product.

However, if MPCA does in fact require RV manufacturers to report, MPCA should permit Aggregate Reporting at the Total Product Level (Vehicle). Each RV manufacturer has numerous models, and each RV contains thousands of individual parts, assemblies, and subassemblies. As a practical matter, reporting on each individual part will overwhelm the database and place an unreasonable burden on manufacturers. This would apply to all sectors that provide complex durable goods to consumers. Each finished product has hundreds if not thousands of individual parts in a finished product. Aggregate Reporting at the Total Product Level would provide accurate measures of each RV's PFAS content and simplify the reporting requirements, while providing MPCA with the information it needs to fulfill the requirements of the law.

Reasonably Ascertainable Information

MPCA should limit the intentionally added PFAS reporting requirement to that which is "known" to manufacturers. What is "known" to manufacturers should be limited to information provided by their component and parts suppliers. It would be unreasonable for MPCA to require manufacturers to conduct an overly burdensome investigative effort to prove the absence of PFAS in parts and components that are incorporated into end products. The reporting requirement should be clear that the manufacturer's obligation to determine whether components and parts purchased from a supplier include intentionally added PFAS, is satisfied with the existing information provided to manufacturers by suppliers.

Fees

RVIA recommends that MPCA charge users of the data for access. We do not support charging a fee on the regulated community to fund this program. The law does not *mandate* that fees be collected. Further it limits any fees to those that are "reasonable." There are ample examples of regulatory programs that collect a user fee paid by those that will derive benefits from access to the information. One relevant example is the U.S. EPA's Premanufacture Notice (PMN) program

under TSCA, whereby a company is requesting that EPA review and approve a new chemical for commercialization and will derive a benefit from EPA's review. RVIA recommends that MPCA consider fees for users of the data and should make this query of stakeholders at the next opportunity for public comment.

Another consideration for limiting the financial impact of fees on the regulated community is the ability to allow for aggregate reporting at the "Total Product Level". As mentioned above, Aggregate Reporting at the Total Product Level would provide accurate measures of each RV's PFAS content and simplify the reporting requirements, while providing MPCA with the information it needs to fulfill the requirements of the law.

Thank you for this opportunity to provide comments on this important rulemaking. If you have questions or need additional information, please contact our Senior Manager Regulatory Affairs, Bill Erny, berny@rvia.org.

Respectfully submitted,

Vice President, Government Affairs
RV Industry Association

RECEIVED
By: OAH on 12/19/2024

Daniel Mustico Attachment

Outdoor Power Equipment Institute

December 19, 2024

Transmitted to https://minnesotaoah.granicusideas.com/

Office of Administrative Hearings
Minnesota Pollution Control Agency

Re: Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

OAH Docket No. 23-9003-40410

Dear Sir or Madam:

The Outdoor Power Equipment Institute (OPEI) writes on behalf of its members to provide stakeholder comments as MPCA considers new rules pertaining to the currently unavoidable uses of PFAS in products and related reporting and fee requirements.

OPEI is an international trade association representing the manufacturers and their suppliers of non-road gasoline powered engines, personal transport and utility vehicles, golf cars and consumer and commercial outdoor power equipment. Outdoor power equipment includes lawnmowers, garden tractors, trimmers, edgers, chain saws, snow throwers, tillers, leaf blowers and other related products. OPEI member companies and their suppliers contribute approximately $15 billion to US Gross Domestic Product each year. OPEI members currently distribute their products across all 50 states, through a diversity of retail outlets including independent dealers.

OPEI members manufacture complex durable goods with tens of thousands of component parts. They share common supply chains, in both substance and complexity, with the heavy non-road equipment and automotive sectors. However, unlike those sectors, OPEI members include some small-to-medium size businesses.

1. MPCA Should Adopt Rules That Reflect the Current Maine PFAS in Products Law

Amara's Law, the Minnesota statute on Products Containing PFAS, Minn. Stat. § 116.943, is quite similar to the Maine statute on Products Containing PFAS, 38 M.R.S.A § 1614. Since both laws affect products containing PFAS that are sold nationally, it is important that, to the extent possible, the requirements of both statutes and their implementing regulations be consistent with each other. Otherwise, companies will be faced with unique requirements in multiple states that, as a practical matter, they must comply with on a national basis.

For that reason, OPEI recommends that MPCA adopt regulations that reflect the provisions of the Maine statute, regulations, and guidance proposed or adopted by the Maine Department of Environmental Protection (DEP).

In particular, OPEI recommends that the MPCA rules include a clarification, which is part of the Maine statute, that reporting must be made "to the extent known to or reasonably ascertainable by" the manufacturer. See 38 M.R.S.A § 1614.2.A. That term is defined to mean "with respect to a person, all information in the person's possession or control as well as all information that a reasonable person similarly situated might be expected to possess, control or know." See 38 M.R.S.A § 1614.1.A.D-2.

This is also the reporting standard for the federal Toxic Substances Control Act (TSCA), 15 U.S.C. § 2607(a)(2), and the TSCA PFAS Reporting Rule, 40 C.F.R. § 705.15. The Maine definition is also the same as the definition used in the TSCA PFAS reporting rule, 40 C.F.R. § 705.3. This clarification would relate to the reporting requirement at Minn. Stat. § 116.943, Subd. 2(a) and (c).

MPCA has indicated that it is considering adoption of a reporting standard. See the following from the MPCA Q&As from the July 24, 2024 webinar, https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-00.pdf:

> **Q: In evaluating an organization's due diligence, will MPCA adopt a reporting standard similar to the TSCA "known or reasonably ascertainable" standard? Recognizing the unknowns in best testing practices, the unavailability of data from all supplier levels, the disparate cost of information gathering across different organizations with different resources, etc.?**
>
> A: In evaluating an organization's due diligence, the MPCA is considering a reporting standard. This acknowledges the challenges posed by unknowns in best testing practices, the unavailability of data from all supplier levels, and the varying costs of information gathering across organizations with different resources. The aim is to ensure that due diligence efforts are reasonable and feasible for manufacturers, considering these constraints.

OPEI encourages MPCA to adopt a reporting standard of "known to or reasonably ascertainable by" the manufacturer.

2. MPCA Should Adopt Regulations That Reflect the Prior OPEI Comments

On March 1, 2024, OPEI submitted comments to OAH Docket No. 71-9003-39667 addressing multiple aspects of the planned rules. Those comments endorsed and attached detailed comments by the Association of Equipment Manufacturers (AEM). OPEI encourages MPCA to adopt regulations reflecting both sets of comments.

As noted in the OPEI and AEM comments, some outdoor power equipment, including off-highway vehicles, uses PFAS in critical applications that are currently unavoidable. Maine includes a complete exemption from its statute for motor vehicles and motor vehicle equipment, including off-highway vehicles and specialty motor vehicles. 38 M.R.S.A. § 1614.4.I. MPCA should exempt outdoor power equipment, including but not limited to off-highway vehicles and specialty motor vehicles, from the January 1, 2032 ban by determining in a rule that use of PFAS in outdoor power equipment is a currently unavoidable use. See Minn. Stat. §116.943, subdiv. 5, paragraph (c).

Thank you for considering these comments.

Sincerely,

Daniel J. Mustico
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WHITE EARTH RESERVATION

CHAIRMAN Michael Fairbanks SECRETARY-TREASURER Michael LaRoque

DISTRICT I Henry Fox DISTRICT II Eugene Sommers DISTRICT III Laura Lee Erickson

Opponents of this law may claim that compliance, especially regarding information disclosure, is overly burdensome. However, it is the industry's responsibility to ensure that any intentionally added PFAS is essential to a product's function and to trace its presence throughout the supply chain. If PFAS is critical to a product, manufacturers must know where, how, and when it was introduced. If PFAS is not intentionally added, it is not subject to disclosure under Amara's Law.

Some industries may push for early exemptions as essential products under this law. Granting these exemptions prematurely undermines the development of safe alternatives to PFAS. While certain uses may currently lack viable substitutes, it is critical to hold manufacturers accountable for finding safer options in the future. Early exemptions could severely hinder progress toward replacing harmful PFAS with less toxic alternatives, contradicting the goals of this legislation. Minnesota must prioritize public health and environmental protection by resisting such detrimental industry requests.

In conclusion, White Earth Nation strongly supports the MPCA's inclusive definition of PFAS, which is broader than the U.S. EPA's definition and aligns with efforts in 22 other states. This comprehensive approach is essential to protecting human health, preserving environmental integrity, and reducing PFAS exposure in Minnesota.
To address the serious challenges posed by PFAS contamination, White Earth Nation recommends that the rule requires manufacturers to:

1. Disclose whether PFAS are intentionally added to product components.
2. Conduct total fluorine testing to capture a more comprehensive measure of PFAS concentrations.
3. Report concentrations of individual PFAS using CAS numbers and approved reporting methods.
4. Labeling to inform consumers of intentionally added PFAS.

White Earth Nation urges the MPCA to adopt strong reporting requirements, reject early exemptions, and uphold the principles of transparency and accountability. By doing so, Minnesota can take meaningful steps to address the PFAS crisis, protect its residents, and ensure a healthier environment for future generations.

Sincerely,

Michael Fairbanks, Chairman

WHITE EARTH RESERVATION

December 18, 2024

Attn: Mary H. Lynn
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Ms. Lynn,

White Earth Nation would like to thank the Minnesota Pollution Control Agency for the opportunity to comment on Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828.

White Earth Nation is a strong advocate and steward for environmental health and the safety and protection of human health. The MPCA definition of perfluoroalkyl and polyfluoroalkyl substances, or PFAS, as class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom. This definition i inclusive of polymers and fluorinated gases. There have been twenty-two states that have adopted this definition. White Earth Nation understands that this definition is more extensive than the US EPA definition and White Earth Nation supports the MPCA definition of PFAS as a crucial step to protect human health and the environment and decrease the amounts of PFAS that people are exposed to and enters into the environment.

White Earth Nation believes the rule should clarify that manufacturers are required to:

1. Report whether any PFAS are intentionally added to a product component.
2. Conduct total fluorine testing.
3. Report concentrations of individual PFAS identified by their CAS numbers, using commercially available analytical methods or supplier-provided information within a reporting range approved by the department.
4. Labeling to inform consumers of intentionally added PFAS.

Total fluorine testing is crucial because standard analytical methods cannot detect most PFAS. This testing provides a comprehensive measure of the total PFAS concentration in a product. Current analytical methods for individual PFAS are insufficient to account for all possible PFAS. With thousands of PFAS identified by CAS numbers, reporting only a subset risks underestimating the total PFAS concentration, especially for substances developed or introduced after the regulation is implemented, and this can have negative consequences for human health. White

Earth Nation believes listing a limited number of PFAS by CAS number could also incentivize manufacturers to shift toward unlisted PFAS, perpetuating the issue we need to protect against.

Regarding Confidential Business Information, White Earth Nations believes the use of PFAS in products should not be treated as confidential business information. For example, laws in Oregon and Washington have required manufacturers of children's products to report the presence of certain toxic chemicals, including PFOS and PFOA, for many years. There should be no secrecy surrounding the use of toxic chemicals in products that pose significant risks to health and the environment. We strongly encourage the Agency to prioritize the public's right to know which products contain PFAS. The Agency should ensure that public health and the effective implementation of this law take precedence.

Minnesota Statute 116.943 Products Containing PFAS Subd. 1 (2)(j) "Currently unavoidable use" means a use of PFAS that the commissioner has determined by rule under this section to be essential for health, safety, or the functioning of society and for which alternatives are not reasonably available. White Earth Nation recommends establishing reporting requirements for products with intentionally added PFAS that are permitted for use due to the absence of viable alternatives and their essential role in health, safety, or societal functioning. One approach could be to include an ecolabel on such products, enabling consumers to make informed choices about their purchases. This measure would serve as a way to safeguard consumers.

Manufacturers bear the responsibility to know whether their products contain PFAS, and it is entirely feasible to do so. For years, manufacturers of children's products in Washington state have reported the intentional use of nearly 100 toxic chemicals, including some PFAS, in product components. These manufacturers have successfully gathered this information from suppliers or other sources. Given the severity of PFAS contamination on human health and the environment, no exemptions for products should be allowed. It is critical to understand where and how these chemicals are being used and where. As you know, Minnesota already faces widespread PFAS contamination, with polluted water bodies, soil, and even drinking water sources documented across the state. PFAS from industrial sites, consumer products, and firefighting foam have contributed to the contamination, endangering ecosystems and human health. The cost of cleanup and mitigation efforts has fallen heavily on the state and its residents, emphasizing the urgent need for stricter oversight and transparency from manufacturers. Stricter oversight and transparency from manufacturers are urgently needed to mitigate these impacts. Furthermore, granting early exemptions for products as "essential" undermines progress toward finding safer alternatives and hinders the legislative goal of reducing PFAS use.

HOUSEHOLD & COMMERCIAL PRODUCTS ASSOCIATION
Innovative Products For Home. Work. Life.

December 19, 2024
Quinn Carr
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Re: Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS)

Dear Mr. Carr,

On behalf of the Household & Commercial Products Association[1] (HCPA) and its members, we want to convey our comments on the proposed Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS) (Revisor's ID Number R-4828). HCPA commented on the original RFC[2] and appreciates MPCA's intent to consider prior responses.

HCPA remains committed to promoting responsible production, use, and management of fluorinated substances, with a strong focus on regulatory requirements that safeguard both human health and the environment, particularly in cases involving persistent, bioaccumulative, and toxic (PBT) chemistries. While HCPA acknowledges that MPCA is bound by the broad definition of PFAS as outlined in the law, it is crucial to consider the diversity of chemicals falling under this broad definition and their unique applications. Adopting a singular policy approach towards PFAS in products does not align with the current marketplace. In addition, we strongly advise the agency to closely monitor related activities undertaken by the U.S. Environmental Protection Agency (EPA) and other state regulators.

[1] HCPA is the premier trade association representing the interests of companies engaged in the manufacture, formulation, distribution and sale of more than $180 billion annually in the U.S. of familiar consumer products that help household and institutional customers create cleaner and healthier environments. HCPA member companies employ hundreds of thousands of people globally. HCPA represents products including disinfectants that kill germs in homes, hospitals and restaurants; air fresheners, room deodorizers, and candles that eliminate odors; pest management products for pets, home, lawn, and garden; cleaning products and polishes for use throughout the home and institutions; products used to protect and improve the performance and appearance of automobiles; aerosol products and a host of other products used every day.

[2] HCPA prior comments are available here - https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-02.pdf

Reporting

HCPA encourages MPCA to publish the reporting rules and any associated guidance as soon as possible. This will allow companies sufficient time to develop the data systems to receive the submitted information and for MPCA to develop the data systems to process and protect the collected information. It may be instructive for MPCA to learn from the experiences of the EPA on the one-time reporting rule under TSCA section 8(a)(7), both from the time afforded reporting entities and EPA's challenges in implementation.[3] It is also unclear whether the reporting requirement is a one-time obligation or whether there will be multiple reporting cycles.

HCPA reiterates concerns about the potential confusion regarding identifying the manufacturer or responsible entity. In some scenarios, there may be dual or ambiguous reporting responsibilities, and having a clear process in place to determine who is responsible would benefit MPCA and manufacturers. It will be critical to identify where in the supply chain there will be reporting enforcement. If it applies to the end user at the retail or business-to-business level, manufacturers will either need to trust inventory data provided to them by the distributor/retailer or run physical audits at each distributor/retailer (assuming this is even possible). An unambiguous way for the regulated community to comply is to apply the enforcement of reporting to the manufactured date of each product.

HCPA encourages MPCA to expand on the necessary data elements necessary to describe the product per Minnesota Statute Chapter 116, Section 116.9407, subdivisions 2(a)(1). While many products have universal product codes (UPC), stock-keeping units (SKU), and/or other numeric codes, some products may have different identifiers or combinations. It would be helpful for companies to clearly understand which information is required to meet the reporting requirements.

HCPA encourages MPCA to define or expand upon the description of "purpose" in Minnesota Statute Chapter 116, Section 116.9407, subdivision 2(a)(2). It is reasonable to interpret "purpose" as analogous to "function," but whether this is the intent is unclear. As an aside, HCPA maintains an extensive list of defined functions for chemical ingredients that may be a helpful resource for MPCA or companies to utilize in this effort.[4] It is also unclear what is intended by "including in any product components," and it would be helpful for MPCA to define or describe this term clearly.

HCPA encourages MPCA to address some unclear portions of Minnesota Statute Chapter 116, Section 116.9407, subdivision 2(a)(3). For example, many PFAS substances have chemical abstracts service registry numbers (CAS RN), but some do not. There may also be situations in which the manufacturer may not know (or not be able to

[3] Summarized here - https://www.epa.gov/chemicals-under-tsca/epa-delays-start-data-reporting-period-rule-requiring-submission-pfas-data

[4] See the HCPA Consumer Product Ingredients Database (https://www.productingredients.com) which defines ingredient functions at https://www.productingredients.com/docs/glossary-ingredient-functions.pdf

provide) the CAS RN because the supplier provided it as a proprietary ingredient. These situations would make it difficult for a manufacturer to respond fully. HCPA encourages MPCA to develop an alternative process when this information is not feasible.

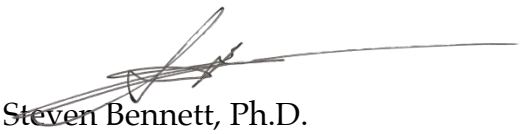
HCPA encourages MPCA to utilize, to the greatest extent possible, the approval of product categories or types of products as allowed per Minnesota Statute Chapter 116, Section 116.9407, subdivision 2(b). This will significantly reduce the reporting burden upon MPCA and manufacturers in many situations. For example, a product within the scope of the law that has multiple fragrance variations would have multiple UPC/SKU numbers, while the underlying product and amount of intentionally added PFAS would remain the same.

Fees

HCPA supports fees to cover reasonable costs associated with implementing the one-time reporting of products containing intentionally added PFAS. In addition to covering the costs associated with gathering the PFAS reporting information, these fees should include the necessary infrastructure to securely store and manage this information as additional products are reported. This will ensure the integrity of the stored data and protect proprietary information or personally identifiable information supplied to MPCA.

In conclusion, HCPA appreciates the opportunity to provide these comments and looks forward to collaborating with MPCA and other stakeholders to ensure that the residents of Minnesota continue to have access to products that enhance their daily lives. If the Agency staff would like to discuss our comments further, please do not hesitate to contact us.

Sincerely,



Steven Bennett, Ph.D.
Executive Vice President, Scientific & Regulatory Affairs

RECEIVED
By: OAH on 12/19/2024
Warren Lehrenbaum Attachment

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AGC
Your Dreams, Our Challenge

December 19, 2024

Office of Administrative Hearings
600 North Robert Street, PO Box 64620
St. Paul, Minnesota 55164-0620

Submitted via: https://minnesotaoah.granicusideas.com/

Re: Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

Dear Commissioner Kessler:

AGC Chemicals Americas ("AGCCA") and its parent company, AGC America, Inc., appreciate this opportunity to provide comments on the Minnesota Pollution Control Agency's (MPCA's) planned new rule governing the submission of information on products containing per- and polyfluoroalkyl substances (PFAS), pursuant to Minnesota Statutes 116.9407, subdivisions 2 and 6 (the "Law"). AGCCA manufactures and supplies a range of specialized industrial chemicals and materials, including resins, coatings, films and membranes, that are incorporated into a wide range of products essential to the daily lives of Minnesota residents and businesses. Many of these materials are comprised of fluoropolymers, which, as discussed in more detail below, are a unique class of inert chemicals that do not present the types of concerns posed by other PFAS chemicals.

Fluoropolymers Should Be Exempt From The Proposed New Rule

Although fluoropolymers fall within the extremely broad definition of "PFAS" used in the Law, they are very much *unlike* the PFAS chemicals that have been found in drinking water, groundwater and blood samples, such as PFOA and PFOS. For example, unlike those PFAS chemicals of concern, fluoropolymers are not soluble in water so they cannot enter drinking water or groundwater, and they do not degrade into smaller, water-soluble molecules. Also, fluoropolymers are not bioavailable or bioaccumulative nor do they degrade to smaller, bioavailable or bioaccumulative molecules, so they do not present the toxicity concerns associated with PFAS chemicals of concern. Indeed, peer-reviewed studies demonstrate that, because of these and other characteristics, fluoropolymers satisfy internationally-recognized

criteria for being "Polymers of Low Concern" (PLC) -- i.e., polymers deemed to have insignificant environmental and human health impacts.[1] Notably, regulators globally have recognized that fluoropolymers do not present the same risk concerns as other PFAS chemicals and should not be regulated in the same manner.[2]

Fluoropolymers also possess a unique combination of properties that make them critical to the performance of a wide range of products and technologies, such as semiconductors, fuel cells, wind turbines, printed circuit boards, coated wires, batteries, solar photovoltaics, avionics, aircraft components, motor vehicle engines, manufacturing equipment, scientific instruments, and laboratory and diagnostic equipment, among others. This unique, and irreplaceable, combination of properties includes: heat resistance; chemical resistance; mechanical resilience; electrical properties such as low dielectric constant and high insulation durability; chemical inertness; and excellent cryogenic properties, among others.

Because of the favorable health and environmental safety profile of fluoropolymers, including their lack of solubility in water and their chemical inertness, as well as their irreplaceability in a wide range of products and applications that are essential to the daily lives of Minnesota residents and the daily operations of Minnesota businesses, fluoropolymers should be excluded from the proposed product reporting and fee rule.

The Proposed Rule Must Avoid Duplicative And Unnecessarily Burdensome Reporting Requirements

Based on comments previously submitted to MPCA, it is reasonable to anticipate that the Agency will receive notifications from thousands of manufacturers, including many small businesses, that will be reporting on tens or hundreds of thousands of products from all sectors of the economy.[3] It is also reasonable to expect that many of those manufacturers may try to

[1] *See "A critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers," Korzeniowski, Stephen H., et al., Integrated Environmental Assessment and Management 19, 2 (2023): 326–354. DOI: 10.1002/ieam; "A Critical Review of the Application of Polymer of Low Concern and Regulatory Criteria to Fluoropolymers," Integrated Environmental Assessment and Management, Henry, Barbara.J., et al.,14, 3 (2018): 316-334. DOI: 10.1002/ieam.4035.*

[2] For example, the Canadian government recently concluded that fluoropolymers should be excluded from the PFAS category proposed for listing as "toxic" on Schedule 1 of the Canadian Environmental Protection Act (CEPA). *See* Canadian Gazette, July 2024: https://www.gazette.gc.ca/rp-pr/p1/2024/2024-07-13/html/notice-avis-eng.html#ne3. Similarly, the European Chemicals Agency (ECHA) recently concluded that fluoropolymers might be suitable for regulation in a manner that is less restrictive than other PFAS chemicals. *See* Progress update on the per- and perfluoroalkyl substances (PFAS) restriction process at p 3.

[3] See, e.g., the following comments previously submitted to MPCA in earlier stages of this rulemaking and available at https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-02.pdf: Comments of Alliance for Automotive Innovation (November 28, 2023) (highlighting the tens of thousands of individual parts and assemblies contained in each automobile); Comments of Coalition of Manufacturers of Complex Products (November 28, 2023) (noting that the products manufactured by coalition members are assembled "hundreds of thousands of components and parts"); Comments of the National Marine Manufacturers Association (NMMA), the Marine Retailers Association of the Americas (MRAA), and the Water Sports Industry Association (WSIA) (November 28, 2023) (noting that boats

pass along to their customers in Minnesota the costs of complying with MPCA's proposed new rules. Consequently, it is incumbent upon MPCA to ensure that the product notification requirements established under the proposed new rule are not duplicative of other similar reporting requirements and do not impose unnecessary burdens on reporting entities. More specifically, MPCA should adopt a tiered approach to product notification that (i) leverages product information collected under other legal authorities and (ii) aligns with similar reporting requirements implemented by other states.

In 2023 the US Environmental Protection Agency (EPA) promulgated a comprehensive PFAS reporting rule under the Toxic Substances Control Act (TSCA).[4] Among other requirements, the rule mandates that ***any*** person who, at ***any time*** since 2011, imported ***any*** product containing ***any*** PFAS compound must provide detailed information regarding the products, quantities, and specific PFAS compounds that were imported into the US. This information, as well as information on downstream uses of the imported products, must be submitted for each year in which a product was imported. Reporting under this final rule will begin shortly, in July 2025, and will end January 2026, resulting in the creation of the most comprehensive inventory of PFAS-containing products ever assembled. This inventory will track all PFAS materials manufactured in the US and all imported PFAS-containing products in US commerce over the past 12 years. Instead of starting from a blank page to create its own entirely new inventory, MPCA should leverage the massive amount of information that will be collected by EPA to carefully tailor product notification requirements for Minnesota that will maximize the utility of the information MPCA collects while reducing the burdens on Minnesota businesses and other reporting entities. For example, the data collected by EPA may reveal that certain categories of products account for a miniscule proportion of the PFAS in commerce in the US, while other product categories account for the bulk of PFAS in commerce. This information could be invaluable in allowing MPCA to hone its reporting requirements to focus on product categories that account for the bulk of PFAS in commerce in the state instead of expending resources on product categories that are trivial contributors to the total PFAS in commerce in Minnesota.

Similarly, MPCA should not require reporting on products that will soon be removed from commerce in Minnesota. Pursuant to Minnesota Session Law 2023, Chapter 60, nearly every product containing PFAS will be prohibited from commerce in Minnesota as of January 1, 2032, unless MPCA determines that the product represents a "currently unavoidable use" (CUU) of PFAS. Thus, as of 2032, the only PFAS-containing products that will remain in commerce in Minnesota are those products for which MPCA has made a CUU determination or that are otherwise exempt from the Law. Rather than expending resources to collect information on products that will imminently be removed from commerce, MPCA should focus its data-gathering efforts on those products that will remain in commerce in the state – by imposing reporting obligations only on manufacturers of products for which a CUU determination has been granted. This approach would enhance the utility of the information collected by MPCA by eliminating information that will soon be irrelevant for products that will shortly be removed

contain "thousands of parts and accessories"); Comments of Consumer Technology Association (November 28, 2023) (noting that "[a] single electronic product can have thousands of components").

[4] 88 Fed. Reg. 70516 (October 11, 2023), *codified at* 40 C.F.R. Part 705.

from commerce and, instead, focusing on ensuring that MPCA receives meaningful and actionable information regarding products that will remain in commerce in the state. In addition to being more efficient and providing MPCA with data that has greater utility, this approach is also consistent with the approach adopted in Maine – the only other state with a broad notification requirement for PFAS-containing products in commerce. Under Maine's recently-amended PFAS in products law, product reporting is only required for products for which the regulator has made a CUU determination.[5]

Finally, to minimize the burden on companies doing business in Minnesota, MPCA should consolidate the product notification process contemplated under the new rule with the process for obtaining a CUU determination from the Agency. In other words, MPCA should allow manufacturers to report the product information required under the proposed new rule as part of their request for a CUU determination from MPCA.

MPCA Must Clearly Delineate Who Has Responsibility For Reporting Under the Proposed Rule

Given the complexity of modern multi-level supply and distribution chains it is essential for the proposed rule to clearly identify which entities in a distribution chain have responsibility for reporting. Without clear, rational and easy to follow rules for assigning reporting responsibility, there is a significant risk that the information reported to MPCA will be wildly inaccurate and, therefore, of limited, if any, real utility. For example, consider a scenario in which a manufacturer (Company A) manufactures a product bearing Company A's brand name and sells that product to an independent distributor located outside the State of Minnesota. Company A does not sell its product to purchasers in Minnesota, but, unbeknownst to Company A, the out-of-state distributor does. In this scenario, Company A might be responsible for reporting under the proposed rule, even though Company A has no idea that its product is being sold in the State, let alone in what quantities, etc. This is not an uncommon scenario. The same is true for sales made through on-line platforms where the original manufacturer is not the entity fulfilling the sale of the product into Minnesota. The original manufacturer may have little or no control over sales of the product into Minnesota, and may have limited or no ability to obtain state-specific sales information from the entity that fulfills orders. There are limitless permutations of this type of scenario, where the manufacturer of a product does not know whether it has reporting obligations in Minnesota because it is not aware of sales of its product into the state and/or the manufacturer does not have access to the information on sales that is required to be reported.

An analogous concern arises from the sale of complex articles that include a component made with a PFAS-containing material. For example, a piece of machinery sold in Minnesota may contain a printed circuit board that is manufactured using a PFAS-containing conformal coating. MPCA has suggested that, in this type of scenario, the manufacturer of the printed circuit board might have responsibility for reporting under the new rule.[6] However, this interpretation is

[5] Public Law 2023, c. 630.

[6] *See* MPCA's "Q&A" document entitled "Progress on PFAS rule development webinar, Questions and Answers" at page 3, available at https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-00.pdf

untenable, since the circuit board manufacturer may have no knowledge or ability to know that its circuit boards are being incorporated into a particular piece of machinery let alone that the piece of machinery is being sold in the State of Minnesota.

Finally, there are numerous scenarios under which multiple entities (e.g., a contract manufacturer and a brand owner) may consider themselves "manufacturers" of the same products – resulting in overreporting for those products.

As these examples illustrate, assigning reporting responsibility to a manufacturer that is not directly responsible for placing a product on the market in Minnesota can easily lead to overreporting and/or requiring reporting by a manufacturer that (i) does not know its product is being sold in Minnesota; and (ii) does not possess or have access to the sales information required to be reported. To address this concern, the proposed rule must provide greater clarity concerning the entities that will be responsible for reporting. More specifically, we urge MPCA to specify in the regulations that ultimate responsibility for reporting a specific product containing intentionally added PFAS falls on the entity that first sells that product or offers that product for sale in the State of Minnesota. Only those entities will know with certainty which products are sold in the State and in what quantities. Placing reporting responsibility on these entities will help ensure that there will be no "double counting" or under-reporting of PFAS-containing products sold or offered for sale in the state.

MPCA Should Adopt A Feasible Reporting Standard

Regardless of who bears responsibility for reporting under the proposed rule, it is likely that many of the entities that must report under the rule will not have access to perfectly complete or precise information needed to address all the reporting elements required under the rule. For example, the manufacturer of a complex article may incorporate into that article a component, such as a printed circuit board, that includes a proprietary PFAS compound that was supplied by a vendor that is unwilling to provide information regarding the precise chemical identity of the proprietary compound, or the precise quantity of PFAS contained in that compound. To address this type of scenario, MPCA should adopt a reporting standard under which manufacturers of products subject to reporting under the proposed rule must supply information required under the rule to the extent that such information is "known to or reasonably ascertainable by" the manufacturer. This is the reporting standard adopted by EPA in its comprehensive PFAS reporting rule discussed earlier.[7] It is also the standard for reporting that was adopted in recent amendments to Maine's PFAS in products law.[8]

Importantly, EPA has clarified that its use of the "known to or reasonably ascertainable by" standard does not implicate a requirement to conduct new testing by a manufacturer. MPCA should adopt the same approach. In this regard it is critically important for MPCA to recognize

[7] *See* 40 CFR 710.23. Under the EPA reporting rule the term "Known to or reasonably ascertainable by" is defined to mean all information in a person's possession or control, plus all information that a reasonable person similarly situated might be expected to possess, control, or know.

[8] Public Law 2023, c. 630.

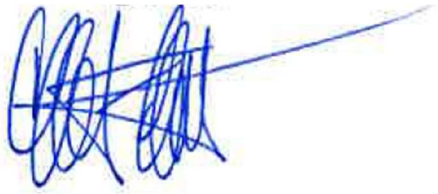
that, in addition to concerns about available laboratory capacity, testing requirements are highly problematic because a large number of commercial PFAS compounds are proprietary chemicals for which there are no commercially available analytical standards and without analytical standards for these proprietary chemicals, commercial laboratories will not be able to develop validated analytical methods (and generate valid results).

MPCA Must Ensure That Reporting Fees Are Transparent And Appropriate

In developing a fee structure for product reporting under the proposed rule, MPCA must ensure that the aggregate amount of fees collected is no greater than what is necessary to administer the program. To that end, MPCA must be transparent about the actual and anticipated costs of administering the program as well as the revenues generated from the reporting fees. We urge MPCA to share this information with stakeholders as soon as it becomes available, and also to refrain from promulgating fees until the costs of administering the reporting program are better understood.

Thank you again for the opportunity to provide these comments. Should you have any questions or desire additional information, please reach out to Ahmed El Kassmi at 610-423-4312 or by email at ahmed.elkassmi@agc.com.

Sincerely,



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AGC Chemicals Americas, Inc.

RECEIVED
By: OAH on 12/19/2024

December 19, 2024

Submitted via OAH eComments website at https://minnesotaoah.granicusideas.com/

Katrina Kessler
Commissioner
Minnesota Pollution Control Agency (MPCA)
520 Lafayette Road N
St. Paul, MN 55155-4194

Re: **Comments of Valmet, Inc. and Valmet Flow Control Ltd.**
MPCA Proposed rules, PFAS in products: Possible Rules Governing Reporting and Fees, Revisor's ID Number R-4828; OAH Docket No. 23-9003-40410

Dear Commissioner Kessler:

On behalf of Valmet, Inc. and Valmet Flow Control Inc. (collectively, "Valmet" or the "Company") we appreciate the opportunity to comment on the possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per- and polyfluoroalkyl substances (PFAS)**, Revisor's ID Number R-4828.**

Valmet is a leading global developer and supplier of process technologies, automation and services for the pulp, paper, tissue, energy and other process industries. A number of Valmet's technology use fluoropolymer containing components, which are critical for a wide range of industrial applications.

In response to the request for comments, we respectfully request that the Minnesota Pollution Control Agency consider the following points regarding (1) the creation of certain exemptions for fluoropolymers and (2) Valmet's reactions to specific statutory language regarding fees and information to be provided pursuant to the law.

1) **Valmet maintains that MPCA should identify certain exemptions in the planned rule for fluoropolymers**

In general, as MPCA develops rules to implement its PFAS in Products Law, the agency also considers which products it believes are "currently unavoidable uses" of PFAS that should not be banned for health and safety reasons. Codified at Section 116.943 of the Minnesota Statutes, the law defines a "currently unavoidable use" as a "use of PFAS that the commissioner has determined by rule under this section to be essential for health, safety, or the functioning of society and for which alternatives are not reasonably available." This definition is sufficiently flexible to authorize MPCA to exempt entire classes of PFAS from the phaseout requirements of the law.

To this end, Valmet respectfully requests that MPCA promulgate a rulemaking designating fluoropolymer (and fluoropolymer-containing products) used in industrial applications as "currently

unavoidable uses" and, therefore, exempt from any future sale or distribution prohibitions in the State of Minnesota pursuant Section 116.943.

Fluoropolymers are a group of polymers that fall within the definition of per- and polyfluoroalkyl substances (PFAS) at 116.943(1). Fluoropolymers have unique properties distinct from certain non-polymeric substances within the PFAS group (particularly, long-chain alkyl acids, such as perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS)). Fluoropolymers exhibit low reactivity, low water solubility, and a high average molecular weight. Fluoropolymers also have a high molecular weight (over 100,000 Da), and therefore cannot cross the cell membrane, and thus are not bioavailable or bioaccumulate. Due to these characteristics, fluoropolymers have low human and environmental toxicity concerns.[1]

In industrial operations similar to Valmet's, fluoropolymers are used in various applications such as gaskets, seals, pumps, coatings, and industrial valves. These components enable the production of a wide range of everyday products used by almost every American, including renewable energy systems, pulp, paper and tissue products, and more. They are also integral in the technology used to achieve zero carbon goals (e.g., emissions control equipment, including, without limitations, filtration material intended to capture particulate matter from emission sources), as well as in the production, transportation, and storage of hydrogen. Furthermore, by and large, viable alternatives to fluoropolymers do not exist. Thus, instituting a prohibition on fluoropolymers will compromise both the availability and efficacy of many existing products used in industrial, commercial, and consumer applications.

Given these realities, Valmet sees that fluoropolymer products in industrial use should be determined as "currently unavoidable uses" of PFAS and, therefore, would be exempt from any future prohibitions on the sale or distribution in the State of Minnesota to enable their essential use in many application areas critical for society.

2) Valmet's specific comments Subdivisions 2 and 6.

Subdivision 2 (a) (3), currently states: "the amount of each PFAS, identified by its chemical abstracts service registry number, in the product, reported as an exact quantity determined using commercially available analytical methods."

Valmet's experience is that it may be difficult to obtain precise chemical identity and quantity information from suppliers. Chemical identity information is difficult to obtain, because, in many cases, it requires inquiry up multiple levels of the supply chain, to companies that businesses subject to the Minnesota law have only indirect contacts and no contractual privity. Obtaining chemical composition and quantity information is doubly difficult in the case of articles, as they incorporate multiple parts that may or may not integrate or be coated with chemicals and that are not always accompanied with chemical specification information.

To the extent that a supplier makes a good faith effort to obtain chemical quantity information, the amounts detected would depend also on the analysis methods used. Therefore, Valmet recommends that the amounts be reported in ranges with a standardized analysis method.

---

[1] Améduri, B., *Fluoropolymers as Unique and Irreplaceable Materials: Challenges and Future Trends in These Specific Per or Poly-Fluoroalkyl Substances*,

Subdivision 2 (b) currently states: "With the approval of the commissioner, a manufacturer may supply the information required in paragraph (a) for a category or type of product rather than for each individual product."

In Valmet's opinion, this provision does not define the approval process sufficiently. Valmet sees that the process should be simple and similar for all operators. In addition, the approval must be permanent for each product category, unless the product has been significantly modified.

Subdivision 2 (5) currently states: "any additional information requested by the commissioner as necessary to implement the requirements of this section."

This wording is vague and unspecific, and it may make compliance challenging depending on the update frequency of the commissioner.

Subdivision 6 / Fees

Valmet's position is that a reasonable administrative fee is acceptable. It should be determined simply and be related to the administrative process involved in PFAS registration. The fee must treat all the operators equally, regardless of the size of the operator.

* * *

Thank you for the opportunity to comment and we look forward to further engagement on this important topic. Please contact the undersigned if you would like more information from us.

Regards,

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December 19, 2024

Submitted via the Minnesota Office of Administrative Hearings eComments Website

Katrina Kessler
Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194

Re: SEMI's Response to the MPCA's Second Request for Comments on Planned Reporting Rulemakings for PFAS-Containing Products

Dear Commissioner Kessler:

On behalf of SEMI, the industry association serving the global semiconductor design and manufacturing supply chain, we write to offer comments on the regulations on per- and polyfluoroalkyl substances (PFAS) being developed by the Minnesota Pollution Control Agency (MPCA or the Agency), as authorized in Minn. St. § 116.943 (Section 116.943). This submission is in response to the MPCA's second request for comments on the planned PFAS reporting and PFAS reporting fees rules under Section 116.943,[1] which SEMI understands is being held to combine the dockets for these two rulemakings. SEMI responded in November 2023 to the MPCA's first request for comments on these two rulemakings,[2,3] and our comments below reiterate our past recommendations and highlight important subsequent developments that the MPCA should consider.

SEMI represents more than 530 member companies in the United States reflecting the full range of the country's semiconductor industry, including design automation and semiconductor intellectual property (IP) suppliers, device manufacturers, equipment makers, materials producers, and subcomponent suppliers. SEMI member companies are the foundation of the $2 trillion global electronics industry, and this vital supply chain supports 350,000 high-skill and high-wage jobs across the United States.

While SEMI fully supports the goal of limiting the release of PFAS into the environment, SEMI has serious concerns about the potential scope of these regulations as well as their incompatibility with Minnesota's own ambition to expand its semiconductor industry. With the indispensable role semiconductors play in

[1] MPCA, Notice of 2nd Request for Comments on PFAS Reporting and PFAS Reporting Fees Rules (Nov. 7, 2024), https://www.pca.state.mn.us/sites/default200B/files/c-pfas-rule1-03.pdf.

[2] In 2023, the MPCA released separate requests for comment on the planned new rules concerning PFAS reporting and PFAS reporting fees. Given the interrelatedness of these two topics, SEMI submitted one comment document addressing both rulemakings, which can be viewed at https://speakup-us-production.s3.amazonaws.com/uploads/attachment/file/65664755f2b670e09c003e6e/SEMI_Comments_on_MPCA_PFAS_Reporting_Regulation_-_final.pdf.

[3] SEMI also submitted comments in March 2024 to inform future drafting of the MPCA's PFAS currently unavoidable use rule under Section 116.943. Those comments can be viewed at https://speakup-us-production.s3.amazonaws.com/uploads/attachment/file/65e20213f2b6701c94005778/SEMI_Comments_on_MPCA_PFAS_CUU_Determination_-_final.pdf.

the Minnesotan and American economy and in national security, it is critical that regulatory efforts avoid restricting semiconductor manufacturing, its corresponding supply chain, and future innovation.

Reiteration of Recommendations from SEMI's 2023 Comments

SEMI wishes to reiterate specific recommendations which were originally included in our November 2023 comments mentioned above. SEMI believes that adhering to these recommendations would help the MPCA avoid irreparable harm to the semiconductor manufacturing industry in Minnesota. Additional details can be found in SEMI's November 2023 submission, but in summary, SEMI requests that the MPCA:

- Grant a reporting waiver for any product, product components, materials, or semiconductor manufacturing and related equipment, its supporting ecosystem, and other microfabricated products that utilize semiconductor-like manufacturing processes, since sufficient information on these PFAS uses is publicly available through entities such as the Semiconductor PFAS Consortium[4];

- Include reportable PFAS concentration ranges[5] directly in the reporting rule, in order to facilitate regulation at a level that is manageable for both affected companies and the MPCA;

- Expressly incorporate in the reporting rule the U.S. Environmental Protection Agency's (EPA's) "known to or reasonably ascertainable by" (KRA) standard that allows notifying entities to rely on supplier declarations, and to limit the scope of investigation that manufacturers would be expected to undertake with respect to upstream suppliers;

- Include with the reporting rule a robust system for the protection of confidential business information (CBI) and trade secrets; and

- Assess reporting fees on a per-company level and decline to assess additional fees for updates to reported information.

Recent PFAS Regulatory Developments that the MPCA Should Consider

Since SEMI submitted its initial comments in November 2023 on the PFAS reporting rulemaking, there have been important PFAS regulatory developments in other jurisdictions that underscore the utility of our recommendations described above. Namely:

- **Maine overhauled its PFAS in products law, including by adding an exclusion for semiconductors.** In April of this year, Maine enacted an amendment to its existing PFAS in products law.[6] That amendment overhauled the original law at the advice of the regulated community and the Maine Department of Environmental Protection (DEP), which was struggling

[4] Semiconductor PFAS Consortium Technical Papers, *available at* https://www.semiconductors.org/pfas/#:~:text=AND%20SEMICONDUCTOR%20PROCESSING%20%3E-,Technical%20Papers,-The%20Semiconductor%20PFAS.

[5] SEMI's November 2023 comments recommend an exclusion for products containing less than 0.1% PFAS.

[6] 38 M.R.S. § 1614.

to implement the original law's restrictions and reporting provisions.[7] Notably, the amendment (1) significantly narrowed and delayed by seven years the law's PFAS reporting requirement, (2) incorporated the KRA standard, (3) delayed the law's ban on PFAS in all products by two years, and (4) added exemptions from all of the law's provisions for several categories of products, including semiconductors and related manufacturing materials and equipment.[8]

The MPCA should heed Maine's direction by, at the very least, granting a reporting waiver for semiconductors and incorporating EPA's KRA standard in the upcoming PFAS reporting rule. More generally, SEMI believes that the MPCA should carefully consider the importance of maintaining uniformity and avoiding duplication of effort by striving to collaborate with other jurisidctions in crafting a rule that is workable and achieves stated objectives.

- **EPA delayed the reporting window for its PFAS reporting rule given implementation problems.** In September of this year, EPA announced an eight-month delay in the reporting window for the PFAS reporting rule issued under the Toxic Substances Control Act (TSCA).[9] This was due to EPA delays in developing a reporting portal.

  Like EPA, the MPCA appears to be experiencing timing issues in drafting and implementing its PFAS reporting rule. The January 1, 2026 deadline is just over year away and the MPCA has yet to propose a PFAS reporting rule. The MPCA noted in a July 2024 webinar that the proposal will not occur until "Feb-March 2025" and the reporting system will not be available until "Late 2025."[10] This timeline raises serious concerns about the feasibility of the January 2026 reporting deadline. Manufacturers cannot conduct sufficient due diligence in preparation for reporting without a finalized reporting rule. Our requested reporting waiver for semiconductors will not only address these concerns for the semiconductor industry, but will also reduce the strain on the reporting portal by eliminating a number of unnecessary reports given that detailed information on PFAS use in the semiconductor industry is already publicly available.

- **A PFAS reporting notice was released in Canada that includes a due diligence standard and permits reporting using PFAS concentration ranges.** In July of this year, Environment and Climate Change Canada (ECCC) issued its own PFAS reporting notice, which is limited to roughly 300 specific PFAS and includes a "reasonably accessible information" reporting standard.[11] That reporting standard is defined as "information that your company possesses or to which you may reasonably be expected to have access,"[12] which appears to be functionally equivalent to the

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[7] See Maine DEP, Regulatory Update: PFAS in Products Law at slide 12, in the October 2, 2023 Meeting Materials for the Maine Legislature Joint Standing Committee on Environment and Natural Resources, https://legislature.maine.gov/doc/10288.

[8] 38 M.R.S. § 1614(4)(K) (providing an exemption for "semiconductor[s], including semiconductors incorporated in electronic equipment, and equipment and materials used in the manufacture of semiconductors").

[9] 89 Fed. Reg. 72336 (Sept. 5, 2024).

[10] MPCA, Progress on PFAS Rule Development at slide 48 (July 18, 2024), https://www.pca.state.mn.us/sites/default/files/20240718-presentation-pfas-in-products-rulemaking.pdf.

[11] Canada Gazette, Part I, Volume 158, Number 30: Supplement, Notice with respect to certain per- and polyfluoroalkyl substances (July 27, 2024).

[12] ECCC, Guidance Manual for Responding to the: Notice with respect to certain per- and polyfluoroalkyl substances, at page 15 (July 2024), https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/pfas-s71-guidance-manual.html.

KRA standard. Furthermore, ECCC's notice permits reporting using PFAS concentration ranges.[13] ECCC's notice provides further support for our recommendations that the MPCA incorporate the KRA standard and concentration ranges in its PFAS reporting rule.

Collectively, these developments underscore the recommendations from SEMI's November 2023 comments. Maine's decision to amend its own PFAS in products law at the advice of the Maine DEP serves to highlight the practical difficulty of effectively implementing broad-based PFAS reporting requirements and restrictions without severely disrupting both the implementing agency and critical industries. The time it takes to craft an operational reporting program must also not be underestimated, as was the case for EPA. Finally, ECCC's decision to limit the scope of its PFAS reporting notice to only a few hundred chemical compounds, include a "reasonably accessible information" standard in the notice, and permit reporting based on concentration ranges showcases how PFAS reporting rules must be designed to minimize unnecessary burdens on both the regulator and the regulated community. SEMI recommends that the MPCA follow these precedents set in other jurisdictions.

Conclusion

SEMI is committed to balancing the need for environmental protection and the sustainability of semiconductor manufacturing operations, which is a complex challenge. SEMI welcomes the opportunity to engage with the MPCA to further explain the critical, currently unavoidable, and well-documented role that certain PFAS have in the semiconductor manufacturing process.

SEMI is grateful for the opportunity to engage on the MPCA's planned rulemakings and is available to meet at your convenience to further elaborate on the issues discussed in these comments. If you have any questions or would like to discuss our positions, please do not hesitate to contact Ben Kallen (bkallen@semi.org).

Sincerely,

Ben Kallen
Senior Manager, Public Policy & Advocacy
SEMI

[13] ECCC PFAS reporting notice, supra note 11, at section 12(c)(ii).

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December 19, 2024

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Re: Comments on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products containing Per-and polyfluoroalkyl substances, Revisor's ID Number R-4828

Dear Commissioner Kessler:

On behalf of the Consumer Technology Association (CTA), we respectfully submit these comments on the planned new rules for submission of required information about products containing per-and polyfluoroalkyl substances (PFAS). CTA is North America's largest technology trade association. Our members are the world's leading innovators – from startups to global brands – helping support more than 18 million American jobs. Our member companies have long been recognized for their commitment and leadership in innovation and sustainability, often taking measures to exceed regulatory requirements on environmental design and product stewardship.

We appreciate the opportunity to provide comments on the upcoming PFAS in Products Reporting and Fee Rule (Rule) implementing the 2023 PFAS in Products Law (the Act)[1], and welcome continued dialogue with the Minnesota Pollution Control Agency throughout this rulemaking process. These comments follow comments CTA submitted to MPCA on this subject in November 2023.[2]

Information Requirement Extension for Electronics Sector: Subdivision 3(d) of the Act grants the commissioner the authority to extend the deadline for submission by a manufacturer if the commissioner determines that more time is needed to comply. We respectfully ask that the MPCA issue an extension for complex articles, including electronic and electrical products, for compliance with the notification requirements of the Act. The MPCA's current rulemaking process schedule anticipates the final adoption of rules by January 1, 2026. This is the same date when manufacturers have to report the presence of PFAS in their products. Without the clarity and information provided by a rulemaking conducted well in advance of the reporting requirement deadline, it will be difficult for many electronics manufacturers to provide the data necessary to comply. Manufacturers do not know exactly what information will be required or how to provide that information to the Agency. Therefore, we encourage MPCA to issue a blanket extension for

[1] Minnesota Session Law – 2023, chapter 60, article 3, section 21 (Minnesota Statutes 116.943)
[2] https://www.pca.state.mn.us/sites/default/files/c-pfas-rule1-02.pdf

all manufacturers of electronic products (including their component) and products with electronic components.

Since electronic devices are manufactured through a complex global supply chain, companies require sufficient lead time to implement any notification requirement. A single electronic product can have thousands of components which are sourced from multiple suppliers from which manufacturers will need to facilitate information requests, create databases to generate necessary reports, conduct supplier training to understand the information requests, validate and clarify any information received, and then link all received information to products sold. In addition, all of these information requests will have to go through this process through multiple levels of the value chain.

Until the MPCA completes its rulemaking, manufacturers cannot know exactly what information they will need to compile across their supply chain. Our comments below on the MPCA questions underscore the need for precise guidance on numerous technical points that we request b clarified in a final rule – and only after exact reporting requirements are issued can manufacturers effectively begin to collect many of the data elements needed. For example, electronics manufacturers cannot say with certainty exactly how long it will take to gather this information present without knowing threshold limits and reporting ranges – issues which we address later in these comments. Given the complexity of the issue and the extensive reporting the law requires, we respectfully ask that the Agency grant an extension to the electronics sector for 48 months after the final adoption of their rulemaking.

Definitions: There are several definitions for which clarification would be useful for manufacturers to understand their reporting responsibilities:

- **Currently Unavoidable Use:** The statute indicates that the commissioner will determine by rule which uses of PFAS will fall under this definition. It would be useful to the regulated community if MPCA could make "currently unavoidable use" determinations as soon as possible. MPCA should create clear guidelines and procedures for these determinations and include them in future rulemakings.
- **Fabric Treatment:** The Rule should be explicit that the definition of "fabric treatment" refers to treatment products which are applied to fabrics and does not include products with fabrics that have been treated.
- **Product and Product Component:** These two definitions should clarify if spare parts are included in the scope of the Act. The statute says that goods are considered products if they are "for sale" to consumers. However, spare parts when provided under warranty to customers are not "sold" to consumers but they are sold when out of warranty. These definitions should explicitly exclude spare parts to allow for the continued repair and maintenance of existing products.
- **Product:** The definition does not state whether or not packaging is included within the definition of "product." We support the Rule clearly excluding product packaging from the scope of the notification requirements. Product packaging should be out of the scope of the Act except for when packaging is sold separately/individually. In Maine's comprehensive PFAS in products law, they have excluded packaging and treat it separately.[3]

[3] https://legislature.maine.gov/ros/LawsOfMaine/breeze/Law/getDocById/?docId=101620

- **Textile Furnishings**: We ask that MPCA clarify that "textile furnishings" do not include electronic articles with textile elements. For example, home speakers, microphones, wearable technology, and other electronic products contain components like batteries and printed circuit boards which have currently unavoidable uses of PFAS. Since these products also happen to have textile elements, they may be unintentionally caught in this definition, so we ask that they be explicitly excluded.
- **Upholstered Furniture:** We ask that MPCA exempt internal electronic and electrical components from the definition of upholstered furniture. Products such as massage chairs, gaming chairs, and motorized swings contain electronic components (motors, wires, batteries, circuit boards) which have currently unavoidable uses of PFAS. These internal electronic components have unique requirements and should be treated separately from the upholstery components of furniture.
- **Used Products:** Subdivision 8(a)(3) exempts the sale or resale of used products. We ask that the term "used product" be defined in the Rule. We also suggest that the definition for "used product" include remanufactured, refurbished, or repaired products.

MPCA should provide CASRNs for all regulated PFAS substances: Subdivision 2 requires manufacturers to report the amount of each PFAS in a product and identify it by its chemical abstracts service registry number (CASRN). We strongly encourage the Agency to issue a full list of PFAS substances covered by the Act and their CASRNs. Without a specified list of chemical names and CASRNs, tracking a class of thousands of chemicals across a complex global supply chain is incredibly difficult especially for complex article manufacturers that are far down the supply chain.

MPCA should consider limiting reporting requirements under the Rule to those PFAS with CASRNs. These registry numbers exist for many PFAS, but the definition of PFAS in the Act is so broad that there may be substances which fall under scope that do not have CASRNs. We also recommend that reporting be allowed by PFAS group instead of only by discrete PFAS substance.

MPCA should clarify that manufacturers can report products by category: The MPCA should provide guidance on what level of product will require notification. If manufacturers are required to report on the smallest individual product and component level, there could be tens of thousands of reports per manufacturer for complex products like electronics. Electronic products can be modular with many component parts. For example, if a consumer purchases a computer, they often custom order various components like hard drives, batteries, and even the color of the plastic casing. This can lead to thousands of possible permutations for a single "product" and therefore thousands of notifications.

Subdivision 2(b) authorizes MPCA to allow manufacturers to provide information by product category, and we support the Agency allowing flexibility in reporting by category. We encourage the Agency to allow manufacturers the option to report by Global Product Classification (GPC) brick code or Harmonized Tariff Schedule (HTS) code. Different industries utilize different codes for reporting, and allowing flexibility in reporting will enable manufacturers of articles to comply more easily. Reporting by product category will also prevent the Agency from being inundated with unnecessary superfluous reporting.

Testing and "Commercially Available Analytical Methods:" We respectfully ask that the MPCA define this term and provide a list of approved test methodologies for PFAS. The EPA's website on testing perfluorinated compounds confirms that "nationally approved methods for measuring [perfluorinated compounds] in non-drinking water samples are not yet available."[4] Manufacturers of electronic products will find it difficult to test their products to determine exact quantity of PFAS as described in Subdivision 2. Currently, there is a notable absence of approved analytical methods tailored for media specifically pertinent to consumer electronics. Regulatory agencies in the US, including the EPA, CDC, FDA, DoD, and USGS, only have validated analytical methodologies for PFAS pertaining to environmental media, biological tissues, food, and firefighting foam. There are limited opportunities for testing complex articles, not all PFAS can be accurately tested for, and there are no internationally-recognized test methods for complex articles for "PFAS" as defined within the Act. MPCA should provide clear information on what test methods it would accept for complex articles.

Additionally, we respectfully ask that the MPCA allow for supplier declarations as an appropriate proxy for a manufacturer in lieu of testing data. It is unrealistic to expect individual testing of the thousands of components within electronic products. Allowing manufacturers to rely on declarations of suppliers will help mitigate this issue. Supply chain restricted substance information has been used for decades to demonstrate compliance with restricted substance laws such as the EU Restriction of Hazardous Substances Directive.

MPCA should be clear about how exactly manufacturers are to comply with testing that may be required by the commissioner. There are no internationally-recognized test methods for "PFAS" as defined in this law. Subdivision 4 authorizes the commissioner to require testing if the commissioner has "reason to believe" a product contains PFAS. "Reason to believe" should be defined and outlined with specific principles and guidelines. MPCA should create clear standards and issue justifications for when it requires manufacturers to conduct testing.

MPCA should clarify the meaning of "Significant Change" used in Subdivision 2: The Act requires that manufacturers update and revise information provided to MPCA "whenever there is significant change in the information." We ask that the Agency provide information on how it interprets "significant change." We suggest that it should be limited to the addition of an intentionally-added PFAS above reasonable minimum threshold levels and should not include the reduction or removal of PFAS. Reporting on the reduction or removal of PFAS should be voluntary.

The Rule should establish a minimum reporting threshold: MPCA must establish a de minimis reporting threshold for the information required in Subdivision 2. Such a threshold is necessary for effective and efficient application of any chemical reporting regime. A lack of a minimum threshold for PFAS in products would make it difficult for manufacturers to properly comply with the Act. The Act is focused on the notification and prohibition of <u>intentionally</u> added PFAS chemicals, and adding a minimum threshold will avoid unnecessary reporting of byproducts and impurities in products.

[4] https://www.epa.gov/measurements-modeling/challenges-measuring-perfluorinated-compounds-pfcs

We respectfully ask that the MPCA include in their rulemaking a threshold consistent with other jurisdictions' chemical reporting and restriction requirements. EU REACH provides a 0.1% by weight threshold for substances of very high concern and Candidate List substances, above which suppliers of articles must provide to their customers relevant information on the substances in the products they sell. This threshold provides a rational, reasonable level that promotes the safe use of substances of high concern without overly burdening the supply chain by requiring excessive and destructive testing to determine whether trace amounts of these substances are present in articles. A threshold would also help ease the burden on the Agency by preventing many notifications related to parts and components that contain only trace amounts of PFAS.

The Rule should provide concentration ranges for reporting: MPCA should provide reporting concentration ranges in its rulemaking for the information required in Subdivision 2. Compliance with the notification requirement for many PFAS substances will be impossible without ranges promulgated by the MPCA because there is no commercially available methodology for identifying an exact quantity of PFAS. The Act specifically authorizes MPCA to approve reporting ranges. However, without knowing those ranges in advance, manufacturers have no way to plan for using them. We ask that the MPCA provide these ranges well in advance of the notification deadline. As part of the rulemaking, the Agency should specify concentration ranges for all PFAS or groups of PFAS subject to notification. Disclosing chemical concentration in ranges has been a long-established practice in other regulatory regimes such as the Globally Harmonized System of Classification and Labeling of Chemicals for Composition and Information on Ingredients[5], EUSCIP reporting, and EU REACH. We strongly encourage the MPCA to consider using the reporting ranges already used under the federal Toxic Substances Control Act (TSCA)[6].

Notifications should be submitted on a "reasonably ascertainable information" standard: We ask that the reporting requirements be based on a "reasonably ascertainable information" standard. Due to the complexity of the supply chain for the electronics sector, a significant amount of time would be required to determine the use/non-use of unregulated PFAS chemicals. Therefore, the notification requirements should be based on information that is "reasonably ascertainable." For chemical reporting rules, EPA typically requires reporting information that is known or reasonably ascertainable. This is the standard EPA uses for its quadrennial Chemical Data Reporting rule [7] requirements as well as the standard EPA is using for its new PFAS reporting rule.[8]

MPCA should adopt clear, highly protective, and enforceable confidential business information protections: We respectfully ask that the MPCA make clear how, practically, a manufacturer could assert a confidential business information (CBI) claim or trade secret under this law. A well-defined framework for all notification and future rulemaking will be essential for the protection of valuable intellectual property that might otherwise be jeopardized. We urge the Agency to adopt highly protective and enforceable CBI protections in its rulemakings for this law.

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[5] https://unece.org/fileadmin/DAM/trans/danger/publi/ghs/ghs_rev08/ST-SG-AC10-30-Rev8e.pdf
[6] TSCA 8a7 Reporting Instructions: https://www.epa.gov/system/files/documents/2023-11/tsca-8a7-reporting-instructions-10-11-23.pdf
[7] https://www.law.cornell.edu/cfr/text/40/704.3
[8] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/tsca-section-8a7-reporting-and-recordkeeping

The technology sector treats the chemical composition of materials as proprietary information that is carefully protected and of significant commercial value. The MPCA's regulations should contain explicit language explaining how manufacturers would provide reporting information to the Agency, how the MPCA will determine what CBI data may be withheld or provided in a generic/sanitized manner, and how that information will be stored and ultimately protected from unlawful disclosure to third parties.

Waiver Process: Subdivision 3(a) permits the commissioner to waive the information requirement if the commissioner determines that substantially equivalent information is already publicly available. MPCA should clarify whether and how waivers are established in advance of an applicable reporting deadline.

Coordination with Other Jurisdictions: Since MPCA's initial round of outreach on this Rule, Maine has updated its PFAS in Products law[9] and began its own regulatory implementation. We encourage MPCA to closely examine their treatment of complex products like electronics and semiconductors.

Subdivision 3(b) allows the commissioner to enter into an agreement with other states to collect information and accept information to a shared system to meet the requirements of the Act. We encourage the MPCA to engage with the U.S. EPA, Maine, and any other states which may pass similar laws regarding notification of PFAS in consumer products. We encourage MPCA to align with other jurisdictions wherever possible. Manufacturers and state agencies implementing these laws will benefit from avoiding the unnecessary burdens of an uneven patchwork of requirements. It would be ideal if Minnesota and Maine could coordinate and use a single reporting database with aligned criteria. MPCA should also coordinate with the EPA in obtaining information related to PFAS.

Conclusion

Thank you again for the opportunity to provide these comments on the upcoming PFAS in Products Reporting Rule. We welcome further engagement with MPCA in this process, and if you have any questions about our comments, please do not hesitate to contact me at dmoyer@cta.tech.

Sincerely,

Dan Moyer
Sr. Manager, Environmental Law & Policy
Consumer Technology Association

[9] https://www.maine.gov/dep/spills/topics/pfas/PFAS-products/

RECEIVED
By: OAH on 12/19/2024
Theresa DiMarco Attachment

MARVIN

December 19, 2024

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155

Re: Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (Previously R-4828 for PFAS in products: Reporting and R-4827 PFAS in Products: Fee rules)

Dear Commissioner Kessler,

Marvin is a Minnesota-based manufacturer of high performance, commercial and residential windows, doors and skylights. Marvin manufactures high performance building products designed and constructed to provide improved safety, comfort, and energy efficiency in residential and commercial buildings throughout Minnesota. Windows, doors, and skylights are vital components of buildings and critical infrastructure, necessary for the safety, security, and functionality of homes, businesses, and other facilities. These products provide protection from external elements as well as facilitate natural light, ventilation, and emergency egress routes, contributing significantly to public health, safety, and the functioning of society.

Marvin appreciates the opportunity to comment on PFAS reporting and related fee structure. We have collaborated with industry partners to voluntarily remove PFAS in products where alternatives are available with equivalent performance. There are some products, like high performance coatings, that do not have replacements for PFAS with similar performance and functionality.
In response to the request for comments on reporting, please consider the following:
Statute Chapter 116, Section 116.9407, subdivisions 2 language, "(a) On or before January 1, 2026, a manufacturer of a product sold, offered for sale, or distributed in the state that contains intentionally added PFAS must submit to the commissioner information..."

Marvin comment: MPCA should exclude individual components sold to MN manufacturers who then fabricate and assemble components that result in a final product. Reporting and fees should only be required for final products sold in the State of Minnesota.

Statute Chapter 116, Section 116.9407, subdivisions 2 language, "(1)a brief description of the product, including a universal product code (UPC), stock keeping unit (SKU), or other numeric code assigned to the product;"

Marvin comment: Customized, configurable products do not have UPCs, SKUs or number codes assigned. Complex, configurable products in the window and door industry would result in millions of unique numeric codes, which is impossible to precalculate and report chemical content in a finished product prior to customer order. MPCA should consider reporting an estimated total by CASN, instead of each individual unique unit.

Statute Chapter 116, Section 116.9407, subdivisions 2 language, “5(d) A person may not sell, offer for sale, or distribute for sale in the state a product containing intentionally added PFAS if the manufacturer has failed to provide the information required under this subdivision and the person has received notification under subdivision 4.”

Marvin comment: Marvin would like to take this opportunity to discuss PFAS and the use of the currently unavoidable use (“CUU”) determination for certain products with high performance coatings. Windows, doors and skylights with high-performance coatings should be considered for CUU determination because of the benefits to consumers and the minimal risk to personal health and the environment. By definition, these products are disconnected from human ingestion and are not in constant and close contact with the human body. High performance exterior coatings are designed to remain bonded to the product for the long service life of the product
There are no alternatives to these products without sacrificing significant service life and creating higher costs for consumers and the environment. The benefits to consumers include the following:

- Security
- Natural light and ventilation
- General and emergency egress
- Extended service life of 30 years or more
- Lower maintenance and less environmental impact
- Superior thermal performance, comfort and energy savings

In response to the request for comments on fees, please consider the following:

Minnesota Statute Chapter 116, Section 116.9407, subdivision 6 language, “The commissioner may establish by rule a fee payable by a manufacturer to the commissioner upon submission of the information required under subdivision 2 to cover the agency's reasonable costs to implement this section. Fees collected under this subdivision must be deposited in an account in the environmental fund.”

Marvin comment: Marvin supports a one-time reasonable fee to support PFAS program administration. Reporting fees proposed in other states should be considered with the goal of harmonizing PFAS reporting and fee structures across states.

Minnesota Statute Chapter 60, article 3, section 21, subdivision 1,” "Perfluoroalkyl and polyfluoroalkyl substances" or "PFAS" means a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.”

Marvin comment: The definition of PFAS should exclude high performance fluoropolymers, such as PVDF. These are large stable molecules that are not water soluble and do not cross cell membranes.

Thank you for the opportunity to partner and engage in this regulatory process. We are hopeful MPCA will consider the recommendations, and feedback provided. We look forward to continued engagement.

Respectfully,

Theresa DiMarco
Marvin
Director, Enterprise Environmental Compliance
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612-749-7700

Personal Care Products Council
Committed to Safety, Quality & Innovation

December 19, 2024

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Submitted to the Minnesota Office of Administrative Hearings via electronic portal at https://minnesotaoah.granicusideas.com

Re: Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per- and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

The Personal Care Products Council (PCPC)[1] respectfully submits the following comments to the Minnesota Pollution Control Agency (MPCA) in response to the Request for Comments regarding the PFAS in products regulations in development to implement Amara's Law (Minn. Stat. § 116.943).

PCPC and its member companies have long been supportive of commonsense laws and policies that protect both the consumer and the environment. For this reason, we have supported laws in other states that prohibit certain intentionally added PFAS from use in cosmetics. We have appreciated the opportunity to weigh in during earlier stages of this rulemaking, and we further appreciate this window for feedback prior to the law taking effect.

We have substantial concerns regarding what we believe is a new interpretation of the law that has been revealed by the MPCA in the months since the last comment submission deadline. The statutory text clearly applies only to the product contained within the packaging. Adding any component of packaging is a misinterpretation of the law and, if enforced, would constitute significant agency overreach. The interpretation proposed by the MPCA conflicts with widely accepted definitions, as well as federal statute and guidance.

We therefore request that this interpretation of the law be reconsidered immediately to instead follow the letter of the law. At a minimum, we request some form of enforcement deferral or an extension on the implementation of this law until more clarification is offered and a meaningful opportunity for industry input is provided.

Packaging is Distinct from Products or Components

[1] Founded in 1894, the PCPC is the leading national trade association representing the cosmetics and personal care products industry. PCPC is dedicated to promoting product safety, quality, and innovation, serving as a unifying voice that champions science-based standards and responsible practices to support health, well-being, and economic growth. PCPC's global members are some of the beloved and trusted brands in beauty and personal care today, providing millions of consumers with the diverse products they rely on every day – from sunscreens, toothpaste and shampoo to moisturizer, makeup, and fragrance.

Packaging is widely accepted and understood to be the material used to wrap or protect an item or good. For instance, the FDA considers food packaging to be a "food contact substance," not a component of food itself. To expand upon the MPCA's own example, an individual using lip balm is unlikely to expect the tube itself to provide any benefit to their lips, as that is merely the receptacle containing the product they have sought out to meet their need.

Federal definitions specific to the cosmetics industry confirm this more common understanding. The Federal Food, Drug, and Cosmetic Act defines cosmetics as follows:

"articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body…for cleansing, beautifying, promoting attractiveness, or altering the appearance" [FD&C Act, sec. 201(i)].

The 2022 Modernization of Cosmetics Regulation Act (MoCRA), the significant bipartisan federal law currently being implemented to update and expand the FDA's authority to regulate the cosmetics industry, rests entirely on regulation of "cosmetic product(s)," defined in statute to update the FD&C Act as follows:

"a preparation of cosmetic ingredients with a qualitatively and quantitatively set composition for use in a finished product" [FD&C Act, sec. 361].

It is clear that neither of these definitions capture any form of packaging, whether integral to the use of the product itself or not.

MPCA Statutory Language
The statute includes an explicit definition for the term "product," as follows:

"an item manufactured, assembled, packaged, or otherwise prepared for sale to consumers, including but not limited to its product components, sold or distributed for personal, residential, commercial, or industrial use, including for use in making other products."

The statute further defines "product component" as follows:

"an identifiable component of a product, regardless of whether the manufacturer of the product is the manufacturer of the component."

Given these definitions, to the law excludes packaging, an interpretation we referenced explicitly in our previous comment submission. PCPC submitted the following on November 28, 2023, as part of our public comment in response to the request for feedback on PFAS Reporting:

> *"1. Are there definitions in subdivision 1 for which clarification would be useful to understanding reporting responsibilities?*
>
> > *Product and Product Component - We request that the definition(s) of "product" and/or "product component" be clarified to explicitly exempt packaging. We understand that the definition of "product" as written does establish an implied distinction between the item itself and the packaging, through the inclusion of the word "packaged" as a potential descriptor of the product, but we believe more explicit language to clarify this distinction would be useful."*

Although we assume the MPCA read and considered all of the comments received in response to their solicitation, we received no feedback in response to this comment submission. PCPC and the cosmetics and

personal care products industry has not received any regulatory text to review, nor have we been provided with any opportunities to formally engage on the rulemaking process on this point. The current comment period, which is not intentionally focused on clarifying this key issue, is the first and only additional opportunity provided for public comment prior to the intended implementation date this coming January 1, 2025.

MPCA Interpretation

We are aware that the MPCA website, as well as a recent webinar from the MPCA, mentioned the inclusion of some forms of cosmetic packaging in the PFAS product ban, revealing an approach in direct conflict with our reading of the law. For instance, the following statement was displayed on screen during the July 25, 2024, webinar offered by the MPCA:

"Only the product packaging which is integral to contain, protect, or dispense the product is considered a product component and is included in the 2025 prohibition….Ex: a manufacturer is selling lip balm, the lip balm and the tube used to contain the lip balm are considered a cosmetic product and are subject to the 2025 prohibition. The plastic mold adhered to the cardboard used to handle and display the lip balm would not be considered a product component."

This same language can be found on the MPCA website and linked in a Q&A document. PCPC does not agree with this new interpretation of the statute and requests that the agency reconsider such a drastic change immediately, prior to implementing the law.

Practical Implications

While we appreciate the MPCA's intention to create broad and powerful regulations from the statute at hand, this unorthodox interpretation of packaging as a part of a cosmetic product oversteps the authority provided by the law. Further, the late announcement of this change and the vague language surrounding the new interpretation creates significant frustration and confusion across our industry. While some forms of packaging remain exempt, certain components of packaging have now been brought back into the scope of this ban without appropriate explanation or delineation regarding which containers supposedly now qualify.

For all of the aforementioned reasons, we therefore request that MPCA's interpretation be reconsidered immediately to instead follow the letter of the law. At a minimum, we request an industry-wide enforcement deferral or an extension on the implementation of this law until both additional clarity and a meaningful opportunity for industry input can be provided.

Thank you for your time and consideration.

Sincerely,

Emily Manoso
Executive Vice President, Legal and Regulatory Affairs
& General Counsel, PCPC

mema.
The Vehicle Suppliers Association

December 19, 2024
Katrina Kessler
Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155

RE: Request for Comments: Possible Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information and Products Containing Per-and-polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828

Dear Commissioner Kessler,

MEMA, The Vehicle Suppliers Association, submits these comments to the Minnesota Pollution Control Agency (MPCA) on its request for comments on possible rules governing reporting and fees paid by my manufacturers upon submission of required information and products containing Per-and-polyfluoroalkyl substances (PFAS).

MEMA is the leading trade association in North America for vehicle suppliers, parts manufacturers, and remanufacturers. It has been the voice of the vehicle supplier industry since 1904.

Automotive and commercial vehicle suppliers are the largest employer of manufacturing jobs in the United States employing over 900,000 people throughout the country. Direct, indirect, and induced vehicle supplier employment accounts for over 4.8 million U.S. jobs and contributes 2.5 percent to U.S. GDP.

Suppliers lead the way in new vehicle innovations. Member companies conceive, design, and manufacture the OE systems and technologies that make up two-thirds of the value of every new vehicle and supply the automotive aftermarket with the parts that keep millions of vehicles on the road, fueling international commerce and meeting society's transportation needs. MEMA members are committed to safety and sustainability.

Vehicle suppliers play a crucial role as the innovators and manufacturers of a multitude of technologies and wide range of components, systems, and materials that improve vehicle safety, emissions, and efficiency. PFAS play a crucial role in allowing vehicle suppliers to meet these safety and sustainability goals. The industry seeks to minimize the use of PFAS where possible, but for many components there are no currently available substitutes.

MEMA, The Vehicle Suppliers Association
1425 K Street NW • Suite 910 • Washington, D.C. 20005
202-393-6362 • nemaorg

The Vehicle Suppliers Association

MPCA MUST PROVIDE A PRACTICABLE SCOPE FOR REPORTING REQUIREMENTS

As MPCA develops its reporting rule, it is crucial that the scope reflects the complex reality of PFAS use in the automotive industry. Motor vehicles are composed of about 30,000 parts, each critical to the safe and efficient function of the vehicle[1]. These parts and components are manufactured by suppliers for use in all vehicles on the road. This includes new motor vehicles as well as the aftermarket components necessary for the repair and maintenance of the existing fleet. The sheer number of parts reflects the need for a reasonable scope to ensure that reporting requirements are practicable.

First, MPCA should issue a defined set of CAS numbers that will be subject to the requirements outlined in Minnesota Session Law- 2023, Chapter 60, H.F. No. 2310. CAS Registry Numbers (CAS RNs) are unique numbers assigned by the Chemical Abstracts Service (CAS) to every chemical substance in the open scientific literature. This database is expansive, and is relied upon by scientists, industry, and government agencies for substance identification[2]. The use of CAS RNs to provide an internationally recognized reference point for industry and regulators alike. Shared reference points, such as CAS RNs, are critical to ensuring that emerging reporting requirements are feasible.

In the case of PFAS, MPCA should take the use of CAS RNs one step further and identify the specific CAS RNs that will be subject to the reporting requirements. PFAS are a class of chemicals for which there is not a universally recognized definition. The PFAS structure list provided by the Environmental Protection Agency's (EPA) CompTox Chemicals Dashboard reaches over 14,000 and is not inclusive of PFAS that do not have explicit chemical structures[3]. As detailed above, the automotive industry anticipates a need to report for thousands of vehicle parts. This number, paired with the number of different PFAS, will require suppliers to submit an overwhelming number of data. It is crucial that MPCA utilize CAS RNs to provide a defined scope for industry to reference when completing reports. Doing so will allow suppliers to focus their reporting efforts and provide better, more complete information to MPCA.

To further refine the scope of this reporting requirement, MEMA urges MPCA to adopt a de minimis exemption. While MPCA has not yet adopted official de minimis language, it has acknowledged at several points its understanding of intentionally-added PFAS to begin around 100 parts per million (ppm)[4]. MPCA confirmed this understanding in its written follow-up from its July 2024 PFAS Rule Development webinar, where it stated "In general, we understand intentional additions of PFAS to be around 100 parts per million (ppm) or above; below that might be intentional but is more likely to be contamination (NOT intentional)." While MEMA appreciates the acknowledgement of such a threshold, we urge MPCA to

[1] Sabhadiya, Jingesh *"40 Basic Parts of a Car."* February 2021
[2] CAS REGISTRY | CAS
[3] CompTox Chemicals Dashboard
[4] FINAL Progress on PFAS rule development webinar 7-18-24 - Questions and answers

consider a higher threshold of 1000 ppm. The automotive supply chain is incredibly complex, with several tiers of suppliers. A higher de minimis threshold will provide suppliers with leeway in the case of any unreported data from further down the supply chain. MEMA strongly recommends that MPCA adopt a threshold that will alleviate the need to report concentrations of PFAS in low concentrations, especially for complex products with global supply chains.

MEMA URGES MPCA TO EXEMPT FLUROPOLYMERS

As it develops its reporting and fees rule, MEMA strongly recommends that MPCA exempt fluoropolymers from the requirements. IMDS 2022 Q1 data found that PFAS are utilized in nearly 8 million automotive parts, 5 million of which contain fluoropolymers. Fluoropolymers meet the requirements to be OECD Polymers of low concern. For example, fluoropolymers are non-toxic, stable, and non-bio accumulative[5]. This demonstrates that within the class of PFAS there are varying levels of risk posed by different chemicals, and by application. PFAS regulations must be sensitive to this differentiation and should employ a risk-based approach to target the chemicals that present the largest hazard with the highest rates of exposure in consumer applications.

PFAS reporting requirements and other restrictions are a new frontier for chemical regulators. Exempting fluoropolymers from the current rule development allows MPCA to target the highest-risk PFAS. This is a necessary step in recognizing the complexity of PFAS as a chemical class, as not all PFAS represent the same hazard and exposure risk.

MPCA MUST INCLUDE A "NOT KNOWN AND REASONABLY ASCERTAINABLE" STANDARD

MEMA urges MPCA to adopt a "not known and reasonably ascertainably" (NKRA) standard as it develops its PFAS reporting rule. This is a provision that has been adopted by EPA in its own reporting rule, with which industry will begin compliance in July 2025. Such a standard is defined as "all information in a person's possession or control, plus all information that a reasonable person similarly situated might be expected to possess, control, or know[6]."

While MPCA has indicated that it does not currently plan to adopt such a provision at this time, MEMA urges the Agency to reconsider. It is critical that for such a complex and expansive reporting requirement that the Agency provide a reporting standard. It would further streamline the process if the reporting standard identified is one that is already being

[5] A critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers - Korzeniowski - 2023 - Integrated Environmental Assessment and Management - Wiley Online Library
[6] tsca-8a7-reporting-instructions_may2024.pdf

deployed by industry for a similar regulatory requirement. Moreover, by providing consistency across the reporting requirement, MPCA will allow reporting entities to focus on providing the highest quality of data.

MPCA MUST PROVIDE GUIDANCE ON SUBDIVISION 5 (CUU exemption)

Finally, as MPCA develops its rule on reporting and fees, MEMA would be remiss to not take this opportunity to reiterate its position on Currently Unavoidable Uses (CUUs).

Motor vehicle uses of PFAS are essential to health, safety, and the functioning of society. MEMA urges MPCA to grant the motor vehicle industry an initial CUU determination as it develops these criteria. Anything less will effectively ban the sale of all classes of automobiles and their parts in the state of Minnesota. Given the large number of vehicle parts, a CUU determination is necessary to allow suppliers the time to identify PFAS in products and conduct research and development for replacements.

CONCLUSION

As MPCA develops its rules governing reporting and fees, MEMA urges the Agency to reduce its scope by providing a defined set of CAS RNs, instituting a de minimis exemption, and excluding fluoropolymers. By taking these steps to reduce the scope, MPCA will allow industry to focus on providing information on the highest-risk PFAS. Further, instituting a reporting standard already adopted by EPA will provide industry with the consistency needed to provide high-quality data.

MEMA appreciates MPCA's consideration of our comments as it develops its rules governing reporting and fees for PFAS. For more information or questions, please contact Emily Sobel, MEMA senior manager of regulatory policy at esobel@mema.org.

Sincerely,

Ana Meuwissen

MEMA Senior Vice President of Government Affairs

RECEIVED
By: OAH on 12/19/2024

Nia Christoforakis Attachment

EssilorLuxottica

December 19, 2024

Katrina Kessler, Commissioner
Minnesota Pollution Control Agency (MPCA)
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Re: Comments on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Proposed Required Information about Products Containing Per- and polyfluoroalkyl substances ("PFAS"), Revisor's ID Number R-4828.

Ms. Kessler,

This letter is in response to the Minnesota Pollution Control Agency's ("MPCA") request for comments on the proposed PFAS in Products Reporting and Fee Rule being promulgated pursuant to Minnesota Statute Section 116.943. EssilorLuxottica ("EL") appreciates the opportunity to provide comments on the upcoming proposed rule.[1]

EL designs, manufactures, and distributes ophthalmic prescription and nonprescription lenses, frames, sunglasses, and the instruments and chemicals used to manufacture such products ("EL Products"). Some of our brands include Ray-Ban® and Oakley® along with lens technology brands Varilux®, Transitions® and Crizal®.

Subdivision 8 Exemption for Medical Devices

Ophthalmic devices, including spectacle frames, lenses, sunglasses, and other diagnostic and therapeutic instruments are medical devices governed under the Federal Food and Drug Administration ("FDA")[2] and are preempted from state authority[3]. Therefore, medical devices should fall under the exemptions in the Minnesota Statute Section 116.943, Subdivision 8(a)(1) which exempts "a product for which federal law governs the presence of PFAS in the product in a manner that preempts state authority."

EL requests MPCA to include an express exemption in the rule from all subsections for drugs and medical devices regulated by the FDA in the regulations to implement this Section. Manufacturers of medical devices should not be required to comply with Subdivision 2 of the statute because it is preempted by federal law and such a requirement places a substantial burden on manufacturers of medical devices without furthering the purpose of Minnesota Statute Section 116.943. Further, similar exemptions have been incorporated into similar laws and regulations that have been enacted or proposed in other states.

EL's mission is to help people *see more and be more* by helping to correct, protect and frame the eyes, make good vision a basic human right, and eliminate uncorrected poor vision. Eyeglasses and sunglasses are essential to fulfill EL's mission. To ensure eye protection and clear vision, photochromic, antireflective, and scratch resistant coatings are often applied to both prescription and non-prescription eyeglasses and sunglasses, which are medical devices regulated by the FDA. Certain of these coatings contain PFAS, the key component to protect lenses from fingerprints, smudges, and scratches. Although EL is actively seeking alternative coatings, a PFAS-free alternative is not currently available.

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[1] Comments have been submitted electronically to https://minnesotaoah.granicusideas.com/discussions/40410-minnesota-pollution-control-agency-request-for-comments-on-pfas-in-products-reporting-and-fee-rule.
[2] 21 CFR Part 886 and *Guidance Document for Nonprescription Sunglasses* (10/09/1998.)
[3] 21 CFR Section 808.1.

EssilorLuxottica

Subdivision 2 Revise Reporting Information Required

EL manufactures and distributes some products that are not medical devices regulated by the FDA. With respect to those products, EL would like MPCA to consider the following:

2(a) Additional Time to Comply

Subdivision 2(a) of the Minnesota statute currently requires manufacturers to submit information to the commissioner on or before January 1, 2026, regardless of when the rule is finalized. This deadline does not consider the number of products the company manufactures or the size and resources of the company. Since many products are manufactured through a complex global supply chain, companies require sufficient lead time to implement any notification requirement. Many items are sourced from multiple suppliers from which manufacturers will need to facilitate information requests, create databases to generate necessary reports, educate suppliers to understand the information requests (especially those outside of North America), validate and clarify any information received, and then link all received information to products sold.

To ensure sufficient time to gather accurate information, MPCA should promulgate rules that would allow an additional 24 months after the final rule is published, which is consistent with other federal laws (OSHA & EPA standards). Additional time, or a mechanism to request an extension, is particularly important due to the need for further clarification of several of the requirements under the statute, which have the potential of greatly increasing the reporting burden for manufacturers. See additional comments on such items below.

2(a)(1) Description of Products

MPCA should clarify that manufacturers can report products by category and not require reporting by individual sku or UPC level: With the approval of the commissioner, a manufacturer may supply the information required for a category or type of product rather than for each individual product. EL is supportive of an approach that would group similar products for reporting; however, the MPCA should provide guidance on what level of product will require reporting. If manufacturers are required to report on the smallest individual product and component level, there could be tens of thousands of reports per manufacturer for complex products like eyewear or instruments. This would be administratively and economically burdensome for impacted companies as well as the Agency to monitor and track this information.

2(a)(3) Amount and exact quantity of each PFAS reported

MPCA requests that the amount of each PFAS reported is identified by its chemical abstracts service registry number, in the product, reported as an exact quantity determined using commercially available analytical methods or as falling within a range approved for reporting purposes by the commissioner.

We strongly encourage the Agency to provide a full list of PFAS substances covered by the new rules and their CASRNs. Without a specified list of chemical names and CASRNs, tracking a class of potentially thousands of chemicals across a complex global supply chain is incredibly difficult, especially for complex article manufacturers that are far down the supply chain. EL asks MPCA to consider developing a list of the specific CASRNs that apply to the statute and to the new rules. This approach is consistent with the Environmental Protection Agency's ("EPA") Toxic Release Inventory ("TRI") reporting requirements.

Furthermore, MPCA should clarify in the new rules what the due diligence standard is for reporting under Subsection 2. The due diligence standard should allow the manufacturer to rely on information or

certifications provided by suppliers and other information to the extent it is known or reasonably ascertainable to the manufacturer, but should not require testing. This aligns with the TSCA PFAS reporting due diligence requirement. It is not currently viable to individually test the thousands of components or raw materials within our products. In addition, MPCA should further clarify the criteria or reasons that could trigger the commissioner's authority to direct or order a manufacturer to conduct testing.

Lastly, instead of requiring manufacturers to provide exact amounts of PFAS in the products, MPCA should provide reporting concentration ranges in its rulemaking for the information required in Subdivision 2. Compliance with the notification requirement for many PFAS substances will be impossible without ranges established by the MPCA because there is no commercially available methodology for identifying an exact quantity of PFAS. The Act specifically authorizes MPCA to approve reporting ranges. However, without knowing those ranges in advance, manufacturers have no way to plan for using them. We ask that the MPCA provide these ranges well in advance of the notification deadline. As part of the rulemaking, the Agency should specify concentration ranges for all PFAS or groups of PFAS subject to notification. Disclosing chemical concentration in ranges has been a long-established practice in other regulatory such as the OSHA Hazard Communication and EPA Toxic Release Inventory (TRI) reporting to name a few.

We strongly encourage the MPCA to consider using the reporting ranges already used under existing established regulations.

2(5)(c) Define Significant Change

Subdivision 2(5)(c) requires manufacturers to submit updated information whenever there is a significant change. MPCA should include in the new rule a definition of Significant Change that would trigger the submittal of updated information and to also limit the definition only to products with an increased amount of PFAS than was originally submitted.

Subdivision 3 Coordination with Other Jurisdictions

As a global company, EL is subject to many laws and regulations worldwide. EL appreciates MPCA's inclusion of Subdivision 3 and every effort MPCA can make to adopt regulations consistent with federal and other state laws.

Subdivision 6 Fees

As stated above, EL complies with laws and regulations worldwide, which often require registration fees and other fees. EL asks that MPCA publish a fee schedule and extend the deadline for payment to 24 months after the regulation is published. This will allow manufacturers to budget for this cost, which may seem minimal in the context of a single state, but the cumulative impact of worldwide compliance costs can result in a significant expenditure.

EL does not support a fee structure that is based on the size of the manufacturers' business or the amount or number of PFAS reported by the manufacturer, as these considerations would not affect the cost to MPCA to administer this program. For the reasons outlined above, EL would encourage MPCA to adopt either a single, annual fee which is not a per product fee or alternatively if a per product fee is adopted to cap the fee. This would help to ensure these additional costs of doing business are not passed along to Minnesota customers or result in a decrease in the number of products EL is able to make available to Minnesota customers.

EssilorLuxottica

Include a Mechanism to Protect Proprietary Information

Minnesota Statute Section 116.943 does not provide a mechanism to protect valuable propriety information or confidential business information. EL encourages MPCA to include in the new rules a provision that allows manufacturers to request proprietary information be treated as confidential and "Proprietary Information" should be a defined term.

Thank you again for the opportunity to provide these comments on the upcoming PFAS in Products Reporting Rule. We welcome further consultation with MPCA in this process, and if you have any questions about our comments, please reach out to our head of government relations, Tillie Fowler, at tfowler@essilorluxottica.com or 202-313-1342.

Sincerely,

Nia Christoforakis

Nia Christoforakis
Vice President Environmental, Health & Safety North America
EssilorLuxottica

AmericanCoatings
ASSOCIATION℠

December 19, 2024

Katrina Kessler
Commissioner
Minnesota Pollution Control Agency
Office of Administrative Hearings
600 North Robert Street
St. Paul, MN 55164-0620

Re: REQUEST FOR COMMENTS on Rules Governing Reporting and Fees Paid by Manufacturers Upon Submission of Required Information about Products Containing Per-and polyfluoroalkyl substances (PFAS), Revisor's ID Number R-4828 (Previously R-4828 for PFAS in products: Reporting and R-4827 PFAS in Products:
Submitted online at: www.minnesotaoah.granicusideas.com
Submitted prior to 4:30 p.m. Central Standard Time

Dear Commissioner Kessler:

The American Coatings Association ("ACA")[1] appreciates the opportunity to provide a supplemental comment regarding implementation of Minnesota Session Law, Ch. 60, Art. 3, Sec. 21 (Minnesota Statutes 116.943), subdivision 2, known as "Amara's Law." The Association's membership represents 90% of the U.S. paint and coatings industry, including downstream users of chemicals who manufacture end-use formulated products such as paints, coatings, sealants and adhesives. ACA appreciates the agency's willingness to interact with stakeholders during this process. ACA is providing this supplemental comment in response to MPCA's (Minnesota Pollution Control Agency's) consolidated notifications and comment period. This supplemental comment is in addition to ACA's prior comment submitted in response to the RFC (requests for comment) from September 2023. This comment raises additional issues, and it is not intended to replace the ACA's prior comment.

[1] ACA is a voluntary, non-profit trade association working to advance the needs of the paint and coatings industry and the professionals who work in it. The organization represents paint and coatings manufacturers, raw materials suppliers, distributors, and technical professionals. ACA serves as an advocate and ally for members on legislative, regulatory and judicial issues, and provides forums for the advancement and promotion of the industry through educational and professional development services. ACA's membership represents over 90 percent of the total domestic production of paints and coatings in the country.

ACA and its members provide the following additional comment:

I. Challenges related to controlling product distribution warrant enforcement discretion.

Manufacturers typically do not control product distribution after manufacture. A distributor can place products on the market at any time after the manufacturer has delivered products to a distributor thereby relinquishing control of distribution. Distribution raises challenges for manufacturers' compliance with the prohibition on sales taking effect on January 1, 2032. Distribution challenges also affect compliance with the reporting deadline of January 1, 2026, when a manufacturer has opted to discontinue product manufacture.

Under the statute, the prohibition on sales requires, "a person may not sell, offer for sale, or distribute for sale in this state any product that contains intentionally added PFAS . . . " Considering that the statute requires a prohibition on sales, ACA requests that MPCA exercise enforcement discretion and consider the nuances of distribution when identifying a responsible party for sales in the state, after the prohibition date.

Manufacturers typically relinquish control of distribution when they sell their product to a distributor or retailer. This distributor or retailer then uses stock to fulfill orders and/or direct sales, shipping a product to various locations. A manufacturer typically is not involved with this level of sales or distribution. Manufacturers can provide instructions to their downstream distributors and retailers to no longer sell specific products into Minnesota, but the manufacturer cannot control distribution. Some larger retailers may have the ability to quickly track distribution. SMEs (Small and Medium Enterprises) do not have this capacity.

Placing the compliance burden on manufacturers could result in disparities in enforcement. Manufacturers could be fined for distribution and sales over which they have no control. They could also be fined for products that have been discontinued, due to sales in Minnesota of warehoused products by a distributor.

Online sales compound the challenge of tracing distribution. Distributors may provide products to a third-party online sales distribution platform. Here, the distribution is even further removed from the point of manufacture then distribution directly to a business or retailer.

Ideally, the prohibition should be based on the date of manufacture rather than a prohibition of sales. This is the approach taken by other product prohibitions, such as California's South Coast AQMD VOC rules. ACA requests that MPCA consider the challenges of controlling sales and distribution when enforcing this section of the statute.

II. Distributors may place discontinued products on the market after the reporting deadline, lessening the incentive to discontinue products with intentionally-added PFAS.

Regarding the reporting deadline of January 1, 2026, the law provides an incentive for companies to discontinue manufacture prior to the reporting deadline. Some companies that plan on discontinuing product lines can still be penalized due to warehoused product that could be placed on the market by distributors after January 1, 2026. In the alternative, these companies could report. Reporting would lead to an adverse impact on brand reputation by being listed in the online database, thereby negating an incentive to discontinue product manufacture.

To maintain the incentive to discontinue manufacture of products, ACA recommends adding a requirement in the rule that:

1. Companies that discontinue manufacture prior to the reporting deadline do not need to report; and
2. Companies will not be held in violation of the reporting requirement if existing stock is distributed and the company stopped manufacture prior to the reporting deadline.

III. Fluoropolymer-containing products should be designated as currently unavoidable uses in the implementing rules.

ACA recommends that the agency designate products that contain fluoropolymers as currently unavoidable uses, at this early stage by rule, due to their fundamental difference from chemistries typically considered "PFAS." Fluoropolymers are considered "polymers of low concern" (PLC) recognized by several regulators, since they are chemically stable, non-toxic, non-bioavailable, non-water soluble and non-mobile. Recently, the State of Washington, Department of Ecology (hereinafter, "Ecology"), when considering fluoropolymers as part of its review of PFAS under *its Safer Products for Washington* program, concluded:

> Fluoropolymers have been found to have thermal, chemical, photochemical, hydrolytic, oxidative, and biological stability (Henry et al., 2018; Korzeniowski & Buck, 2019a). They are almost insoluble in water and not subject to long-range transport. With very high molecular weight (greater than 100,000 Da), fluoropolymers cannot cross the cell membrane. They are neither bioavailable nor bioaccumulative. Clinical studies of their use in medical devices has [sic] demonstrated lack of chronic toxicity or carcinogenicity and no reproductive, developmental, or endocrine toxicity.[2]

The two studies Ecology relies on, from *Henry, et. al*. and *Korzeniowski*, evaluated criteria to conclude that fluoropolymers are not mobile, bioavailable or bioaccumulative. Further, they do not transform into long chain, non-polymeric chemistries associated with PFAS contamination. Fluoropolymers are a fundamentally different chemistry from PFOA, PFOS and other PFAS chemicals associated with contamination. Because of these qualities, fluoropolymers have been classified as "polymers of low concern" by regulators.[3]

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[2] Washington Department of Ecology, *Per- and Polyfluoroalkyl Substances Chemical Action Plan*, p. 97, Sept. 2022 revision of original publication from April 4, 2021, available online at: https://apps.ecology.wa.gov/publications/documents/2104048.pdf.

[3] See Henry, B.J., Carlin, J.P., Hammerschmidt, J.A., Buck, R.C., Buxton, L.W., Fiedler, H., Seed, J. and Hernandez, O. 2018, *A critical review of the application of polymer of low concern and regulatory criteria to fluoropolymers*, Integr Environ Assess Manag, 14: 316-334, available online at: https://doi.org/10.1002/ieam.4035;
See also Korzeniowski, S.H., Buck, R.C., Newkold, R.M., El kassmi, A., Laganis, E., Matsuoka, Y., Dinelli, B., Beauchet, S., Adamsky, F., Weilandt, K., Soni, V.K., Kapoor, D., Gunasekar, P., Malvasi, M., Brinati, G. and Musio, S. 2022. *A*

DoE (Department of Energy) recently concluded that fluoropolymers are distinct from non-polymeric PFAS chemicals in its report, *Assessment of Fluoropolymer Production and Use with Analysis of Alternative Replacement Materials* (published January 2024). DoE explains that due to relatively smaller molecular weight, non-polymeric PFAS are mobile in a variety of media, increasing particle dispersion. A significantly higher molecular weight of all forms of fluoropolymers, over non-polymeric PFAS, makes fluoropolymers stable and non-water soluble compared to non-polymeric forms. The report notes that literature suggests that fluoropolymers are generally non-mobile and cannot permeate the cell membrane. Some reports disputing these conclusions note evidence related to polymers rather than fluoropolymers.

The DoE further explains that,

> The unique characteristics of fluoropolymers can enhance product durability, sustainability and safety. Products that are lighter and longer-lasting will generally have lower life cycle costs, embodied energy, transportation-related emissions, and safety risks.

Benefits of fluoropolymer usage in building construction and infrastructure are covered in Section 2.4.3, page 2-11 of the report. Fluoropolymer coatings can reduce building cooling costs and improve energy efficiency by up to 22%. Fluoropolymer coatings reduce building maintenance by extending building life, even in harsh environments, while enhancing overall stability. Fluoropolymer coatings also are resistant to dirt adhesion enhancing their solar reflective and protective properties.

For the reasons noted above, Canada proposed to exclude fluoropolymers from its definition of PFAS for regulatory purposes, proposed in its *Updated Draft State of Per- and Polyfluoroalkyl Substances (PFAS) Report*[4]. Based on the findings of these bodies, ACA recommends removing fluoropolymer-based paints from the scope of covered products.

Sincerely,

Riaz Zaman
Sr. Counsel, Government Affairs
American Coatings Association
901 New York Ave., Ste. 300
Washington, DC 20001
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critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers. Integr Environ Assess Manag, available online at: https://doi.org/10.1002/ieam.4646.

[4] See the Executive Summary in the Canadian Gazette, July 2024: https://www.gazette.gc.ca/rp-pr/p1/2024/2024-07-13/html/notice-avis-eng.html#ne3.

RECEIVED
By: OAH on 12/19/2024

Jesse McArdell Attachment

December 19, 2024

Commissioner Katrina Kessler
Minnesota Pollution Control Agency
520 Lafayette Rd, St Paul, MN 55155

Subject: Regulations on Reporting and Fees for Manufacturers Submitting Information About Products Containing Per- and Polyfluoroalkyl Substances (PFAS), Revisor's ID Number R-4828

The National Marine Manufacturers Association (NMMA) is the premier trade association for the U.S. recreational boating industry, representing nearly 1,300 marine businesses, including manufacturers of recreational boats, marine engines, and accessories. Many of our members are small, U.S.-based, family-owned businesses. Together, they produce more than 85% of the marine products sold in the U.S. The recreational boating industry contributes $230 billion to the national economy and supports over 812,000 American jobs across 36,000 businesses nationwide.

WSIA is the towed watersports industry's leading advocate, working to strengthen, grow boating and protect the interests of its member companies and recreational boaters across the country. The WSIA develops best practices, maintains waterway access rights, educates participants, and promotes safety on the water, including when participating in towed watersports. WSIA represents over 440 member companies, including boat, marine engine, and accessory manufacturers, as well as marine dealers.

MRAA is the leading trade association of North American small businesses that sell and service new and used recreational boats and operate marinas, boatyards, and accessory stores. MRAA represents more than 1,300 individual member retail locations and conducts advocacy efforts on their behalf. Minnesota's outdoor recreational community and industry are at serious risk if invasive carp continue to move upriver and spawn.

Boating is also a significant economic driver in Minnesota, generating $6.9 billion annually and supporting over 25,000 jobs and 700 businesses. We recognize and appreciate the important role the Minnesota Pollution Control Agency (MPCA) plays in addressing environmental challenges and enforcing essential regulations.

Our members, many of whom are small businesses, face unique challenges in complying with Minnesota's PFAS reporting requirements. While we all share the common goal of protecting the environment and human safety, it is crucial that regulatory efforts balance these objectives with the economic realities of our industry.

We propose the following recommendations for implementing PFAS reporting requirements, emphasizing a risk-based approach that considers the specific challenges faced by small businesses, cost factors, and the duration of Unavoidable Use determinations.

Address the Unique Challenges of Minnesota's Small Marine Businesses

Small businesses in Minnesota's marine industry play a vital role in assembling complex components such as recreational marine engines, boats, trailers, and accessories. However, they face significant challenges in meeting the detailed identification requirements outlined in Session Law - 2023, Chapter 60. For example, a typical 20-foot boat contains more than 1,000 distinct stock keeping units (SKUs), making it nearly impossible to identify 12,000 potential PFAS chemicals in each purchased component and subassembly. In most cases, marine manufacturers do not directly produce PFAS-containing products but assemble components that may contain PFAS into the final product.

The global and multi-tiered supply chain further complicates compliance. Minnesota-based dealers and manufacturers represent only a small portion of the sales made by international importers and distributors, who often have no knowledge of the destination of their products. Our members, who manufacture only a limited number of components, face significant financial and logistical barriers in obtaining the required information.

Given these challenges, we strongly urge the MPCA to consider these unique circumstances when making Unavoidable Use determinations for marine businesses. Recreational boat building is primarily driven by small businesses that assemble various purchased components designed for long-lasting performance in harsh conditions. Acknowledging these practical limitations will help create a more realistic and feasible regulatory framework.

Define "Essential for Health, Safety, or the Functioning of Society" Using a Risk-Based Approach

To better protect human health and the environment, we recommend implementing a risk-based framework in the PFAS Reporting Requirements regulations. By prioritizing the environmental, health, and safety risks directly associated with PFAS chemicals, Minnesota can direct its regulatory efforts toward the most critical concerns. To enhance this approach, we suggest conducting a comprehensive assessment of both hazards and exposures, taking into account the unique properties and uses of individual PFAS compounds. complexities of our industry.

Ensure CCU Determinations Remain in Effect for the Lifetime of Each Exempted Product Category

The EPA's PFAS Master List includes over 12,000 potential chemicals, which adds significant complexity to the reporting process. To address concerns about the expanding list, we propose that Unavoidable Use determinations for specific product categories remain in effect for the lifetime of the product. This would provide much-needed stability for retailers and manufacturers, allowing them to comply without the added uncertainty of frequent re-evaluations.

Reporting a Range of PFAS Values

Section 116.9407, Subdivision 2(A)(3) requires manufacturers to report the exact amount of each PFAS in their products, identified by its Chemical Abstracts Service (CAS) registry number, using commercially available analytical methods. As previously discussed, boat manufacturers purchase thousands of components and assemble boats from various parts. Obtaining precise amounts from suppliers is often difficult, if not impossible, as they may treat this information as confidential business data. Many of the subcomponents are layers deep in supply chains so it's not practical for end assemblers to quantify PFAS in every individual component Additionally, CAS registry numbers are challenging to acquire without a nondisclosure agreement (NDA) between the manufacturer and supplier. Even with an NDA, such

information cannot be disclosed in publicly accessible databases. Analytical methods also frequently yield false positives for organic or inorganic fluorine, and accurately identifying specific PFAS compounds and their concentrations is both complex and costly. Given these measurement challenges, reporting ranges is a more practical and realistic approach.

Reporting by Category or Product Type

Section 116.9407, Subdivision 2(B) allows the commissioner to approve reporting by product category or type instead of by each individual product. NMMA supports this approach, as reporting by SKU or product-specific identifiers is impractical for manufacturers. A single marine product, such as a task seat, can have millions of possible variations due to factors like color, dimensions, and options. Reporting by a risk-based approach category or product type would streamline the process, reducing the complexity and cost of compliance.

Fees for Reporting

Under Section 116.9407, Subdivision 6, the commissioner may establish a fee to cover the costs of implementing the reporting requirements. The Marine Industry supports a one-time, reasonable fee rather than an annual fee. We recommend that the fee be based on company size rather than the number of products or SKUs reported, ensuring it is fair and proportional. Additionally, we urge the MPCA to consider the reporting fees proposed in other states, as the financial burden and complexity of compliance are rapidly increasing across the country.

One-Time Reporting Requirement

The MPCA has interpreted the reporting requirement to be a one-time submission, with updates only required if there are significant changes to the product (e.g., when PFAS are added or removed). The Marine Industry agrees with this interpretation and supports the idea of a one-time reporting requirement for priority risk-based products to alleviate the administrative and financial burden on manufacturers.

In conclusion, we urge the MPCA to work closely with Minnesota's marine businesses to establish a practical and achievable process for applying for and securing approval for unavoidable use exemptions. We believe that, through collaboration, the MPCA and the marine industry can find a balanced approach that protects the environment while supporting the economic sustainability of Minnesota's marine sector.

We appreciate your consideration of these recommendations and look forward to the opportunity to work together in implementing them for the benefit of both environmental protection and the economic sustainability of our industry. Please reach out to Jmcardell@nmma.org, with any questions or for further information.

Sincerely,

Jesse McArdell

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OUTDOOR INDUSTRY ASSOCIATION

December 19, 2024

Katrina Kessler, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

By Website Submission

Re: **Outdoor Industry Association Comments on MPCA's Planned Rulemaking on Reporting and Fee Obligations for Manufacturers of Products Containing Per-and polyfluoroalkyl Substances**

Dear Commissioner Kessler,

On behalf of the Outdoor Industry Association (OIA), we present these comments in response to the Minnesota Pollution Control Agency's (MPCA's) request for comment on its planned rulemaking implementing reporting requirements and associated fee provisions authorized by Minnesota Statute Chapter 116, Section 116.9407, subdivisions 2 and 6.

A member-based collective, OIA is a passionate group of business leaders, sustainability experts, policy makers, and outdoor enthusiasts committed to sustainable economic growth while protecting—and growing access to—the benefits of the outdoors for everyone. OIA has worked as a catalyst to lead the outdoor industry in understanding and eliminating harmful chemicals and materials from their supply chains.

Outdoor gear and apparel are designed to protect the user in a variety of circumstances. In the outdoors, qualities like water repellency, oil and grease repellency, durability, breathability, and heat resistance can make an incredible difference for comfort and survival. In extreme conditions, water repellency can be a life-saving function. The outdoor industry has used water repellant treatments to make moisture bead up and roll off outer fabric and membrane layers. Historically, these treatments have relied on per-and polyfluoroalkyl substances (PFAS).

The outdoor industry is uniquely positioned to support Minnesota's vision of a thriving and environmentally responsible economy. Responsible chemical management is a critical piece of that puzzle. That is why outdoor brands have led the way in researching and deploying innovative technologies that will phase out PFAS entirely while maintaining protective qualities. Through that work, our brand leaders have developed unique expertise in the identification and phaseout of these chemicals. However, with that knowledge, we are concerned about the challenges that our members will face with the growing patchwork of state and federal PFAS reporting regulations. We submit these comments to aid MPCA

in its drafting of forthcoming regulations governing PFAS reporting and associated submission fees.

I. Adopt Achievable Reporting Requirements

MPCA's forthcoming reporting regulations will significantly impact OIA's member companies that manufacture products containing PFAS. Ensuring that reporting accurately captures information on PFAS-containing products sold in Minnesota without overly burdening manufacturers or cutting off the Minnesota market entirely requires a balanced regulatory approach. To that end, OIA requests that MPCA create achievable reporting requirements through category level reporting, a science-based standard for reportable PFAS, and de minimis/safe harbor reporting limits while also aligning its reporting rules with regulations in effect in other states.

A. Employ Time of Manufacture Limitations and Safe Harbor Content Limits

To avoid placing an unnecessary burden on brands that have already worked to phase out PFAS from their products, we ask that MPCA adopt exemptions for products manufactured before the reporting requirement goes into effect. Such exemptions have been adopted in several states.[1] Those exemptions protect retailers and brands alike from inventory management challenges that have plagued other states implementing PFAS regulations. Brands may have little knowledge of historical product composition, as well as the location of those products across the marketplace. Such an exemption would allow manufacturers to focus on forward-looking products rather than engage in a needless inventory investigation.

Further, to prevent submissions for products with no intentionally added PFAS, we ask that MPCA develop numerical safe harbor limits below which reporting will not be required. MPCA should institute a de minis level for Total Fluorine or Total Organic Fluorine detection. Any products with a Total Fluorine or Total Organic Fluorine detection below the maximum number would not be deemed as containing intentionally added PFAS, while those with detections above the maximum would be subject to the presumption that PFAS had been added as part of the manufacturing process. We recommend, for example, a level of 100ppm to mirror California's safe harbor level that will go into effect in 2025.[2] MPCA could also implement a higher safe harbor limit on Total Fluorine or Total Organic Fluorine

[1] *See* N.H. Rev. Stat. § 149-M:64(II)(b)(2) ("The following are exempt from the PFAS ban imposed by this section: … Products manufactured prior to the ban imposed by this section."); WAC 173-337-110(3)(b-c) ("The restriction in (c) of this subsection takes effect on January 1, 2026… this does not apply to a: (A) Priority consumer product described in (a) of this subsection manufactured before January 1, 2026, even if the priority consumer product was refurbished after January 1, 2026.")

[2] Cal. Health & Saf. Code § 108970(g)(2)(A).

to account for common cross contamination found in outdoor products that were manufactured without intentionally added PFAS.

B. Allow for Category Level Reporting

OIA requests that MPCA institute Minnesota's PFAS reporting requirements at a product category level rather than for individual products. Current statutory language instructs manufacturers to submit product descriptions that include "a universal product code (UPC), stock keeping unit (SKU), or other numeric code assigned to the product."[3] Reporting at a product code level would be extremely difficult for outdoor companies to achieve, given the variety of products that may contain PFAS. Even small individual product manufacturers may have thousands of SKUs in their catalogue. The burden of per-product testing and reporting could render the reporting requirement simply too challenging to achieve.

Reporting at the product category level would alleviate an unreasonably heavy regulatory burden while also capturing relevant information. Furthermore, MPCA is specifically authorized to allow for reporting at the category rather than the individual product level, as the statute provides that "[w]ith the approval of the commissioner, a manufacturer may supply the information required . . . for a category or type of product rather than for each individual product."[4]

MPCA should use this authority in its upcoming rulemaking to ensure that manufacturers can submit reports for product categories as opposed to individual products to avoid an unnecessary regulatory imposition. MPCA may want to consider the use of Harmonized Tariff Schedule (HTS) codes as a mechanism to organize such category-level reporting, or provide accommodations for brands to report at the style level.

C. Develop Science Based Reporting Standards

Minnesota's PFAS reporting provisions currently indicate that reporting should be submitted for individual PFAS chemicals, using individual substance names and chemical abstracts service registry numbers (CAS RNs). We ask that MPCA consider the challenges with testing given current technological constraints and consider adopting a reporting requirement using Total Fluorine or Total Organic Fluorine as alternative reporting options. Failure to do so would implement a reporting requirement that operates as a functional ban, as many consumer product manufacturers are unable to accurately collect information, test, or report on individual PFAS with such granularity. Further, it may create incentives to substitute known or listed PFAS for unknown PFAS.

[3] Minn. Stat. § 116.943(2)(a)(1).
[4] Minn. Stat. § 116.943(2)(b).

There are no currently approved test methodologies that can provide test results for all PFAS individually. In fact, there are no EPA approved test methods for consumer products. ASTM has convened a subcommittee to discuss the issue but has yet to coalesce around test methods. Further, in complex global supply chains, suppliers do not want to disclose information regarding chemical inputs due to their proprietary nature. As a result, any reporting requirement for amounts of specific PFAS chemicals would impose an unknown set of obligations on outdoor brands—what test methods should they employ in the absence of information?

There are generally accepted test methods for Total Fluorine in consumer products.[5] These tests may be used by brands as an indicator of PFAS content. However, those test methods are merely a screening tool—they do not tell you what PFAS is in the product, they do not necessarily indicate the level of PFAS in a product, and they may capture fluorine that is unconnected to PFAS content.

Private labs, meanwhile, have developed their own in-house test methods for Total Organic Fluorine in an attempt to isolate those fluorine atoms that can be attributed to PFAS. Those test methods are often proprietary and are not consistent across different labs. They are not standardized, and do not reliably isolate organic from inorganic fluorine in most of the types of samples relevant for outdoor apparel and gear. This is particularly an issue for trims and hard goods where inorganic fluorine might be present in composites.

A test for Total Fluorine can cost approximately $150 for a material or finished product. A test for Total Organic Fluorine will cost more. Some labs provide test packages for select PFAS, but they vary in comprehensiveness and cost. Some labs offer testing for 30 PFAS, others offer testing for 60 PFAS, and still others offer testing for up to 100 PFAS. Those packages do not cover the thousands of potential PFAS. Our members have been quoted between $200 and $1600 to test for even a limited set of PFAS in a single component or material. An individual product may contain more than 60 materials. In constructing reporting requirement regulations, we ask that MPCA consider the technological limitations, costs, and due diligence requirements in complying with those different reporting requirements.

MPCA should take a science-based approach that matches the realities of testing in the marketplace. In light of current capabilities, we recommend that MPCA adopt a reporting requirement that allows for reporting of *either* Total Fluorine or Total Organic Fluorine. Such information will provide the public with the information needed to make informed choices, while also providing clarity on how brand leaders can comply with those reporting obligations. Otherwise, the reporting requirements will simply act as prohibitions by another name.

[5] EN 14582:2016 or ASTM D7359:2018.

OUTDOOR INDUSTRY ASSOCIATION

D. Align Requirements with Reporting Measures in Other States

Minnesota is one of several states that have adopted reporting requirements for intentionally added PFAS in outdoor gear and apparel, and outdoor brands have already begun adjusting their product lines and compliance plans to fit those state regulatory regimes. For instance, Washington state has drafted preliminary rules for annual reporting for products containing primary chemicals, including PFAS.[6] Connecticut also has implemented detailed reporting requirements for products containing intentionally added PFAS, including specially allowing for reporting by Total Fluorine.[7] We request that MPCA draft reporting regulations in line with those already issued by other states. Doing so will allow companies to streamline reporting, thereby reducing the overall compliance burden on OIA members. Simplifying this compliance burden will not only allow companies to save time and effort, but will also provide brand leaders with the time needed to prioritize the removal of PFAS and other chemicals of concern from their supply chains rather than focus on compliance for its own sake.

II. Conclusion

We appreciate the opportunity to comment and welcome continued engagement. Please contact Julie Brown, OIA's Director of Sustainable Business Innovation, at jbrown@outdoorindustry.org if you have any questions or would like additional information.

Best,

Kent Ebersole
President
Outdoor Industry Association
P.O. Box 21497
Boulder, CO 80308

[6] To be codified at WAC 173-337-060.
[7] 2024 Conn. Pub. Act No. 24-59 (S.B. 292) § (1)(b)(1).

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William Moore
Minnesota Office of Administrative Hearings
600 North Robert Street
P.O. Box 64620
St. Paul, Minnesota 55164-0620

Re: Request for Comments Minnesota Statute Chapter 116, Section 116.9407, subdivisions 2 and 6. Revisor's ID Number R-4828

Hitachi Energy appreciates the opportunity to comment on this important topic. Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. With our North American headquarters in Raleigh, North Carolina, the company employs more than 6,300 in both manufacturing and locations throughout the region, serving customers in the utility, industry and infrastructure sectors with innovative solutions and services across the value chain. Together with customers and partners, we pioneer technologies and enable the digital transformation required to accelerate the energy transition toward a carbon-neutral future. Hitachi Energy is proud to have proven track record and unparalleled grid technology installed base in more than 140 countries.

Minnesota Statute Chapter 116, introduced several sales prohibitions for products with intentionally added PFAS, each with varying effective dates. Hitachi Energy recognizes the importance of this legislation for the community and businesses operating in the state.

We kindly request a derogation for uses and sub-uses of PFAS chemicals for the Non-consumer power grid equipment and technologies including but not limited to semiconductors, transformers, high voltage switchgear, and grid technologies.

Pursuant to the stakeholder consultation period, we would like to provide additional information on critical grid technologies for consideration in this process.

Power Grids Are Essential for the Functioning of Society:

- Power grid products are critical for the reliable and efficient transmission and distribution of electricity, which is fundamental to the functioning of modern society. Power grid products support essential services such as healthcare, emergency services, as well as everyday conveniences like lighting, heating, and communication.

- Imposing restrictions on PFAS in power grid products could undermine reliability of critical products and lead to significant disruptions in the power supply, affecting both residential and industrial consumers.

Lack of Viable Alternatives:

- Non-consumer power grid infrastructure must meet international safety requirements due to extreme operation conditions (e.g., high voltage, high current, extreme temperatures, adverse weather conditions, etc). PFAS materials are used in non-consumer power grid infrastructure due to the unique properties of these materials,

such as high thermal stability, chemical resistance, and electrical insulation, which are crucial for the safe operation of electrical infrastructure.
- Currently, viable PFAS-free alternatives that can match the safety, performance, and reliability, standards required for non-consumer power grid infrastructure are extremely limited despite ongoing R&D programs, it is very likely that for some applications no suitable alternatives can be identified.

Trained Professionals and Safety Protocols:

- The maintenance and operation of power grid products are carried out by highly trained professionals who follow stringent safety and environmental protocols. This ensures overall efficacy and reliability of the grid.
- The useful life of equipment and components is very long, often exceeding 40 years with appropriate maintenance. This contrasts with single-use and/or limited-life consumer goods, which reach their end-of-life sooner

Support for Renewable Energy Transition:

- Non-consumer power grid infrastructure plays a crucial role in integrating renewable energy sources into the grid.
- To utilize any renewable energy technology, it must be connected to the electrical network through non-consumer power grid infrastructure. Any legislation impacting on non-consumer power grid sector will greatly impact the availability and accessibility of renewable energy.
- Our ecofriendly circuit breakers utilize 3.5% of C4-FN, a PFAS not classified as toxic, by using this small amount of PFAS gas to replace SF6, the global warming impact is reduced by 99% compared to the only other commercially available high voltage transmission switchgear system on the market.

Executive Summary

Per- and polyfluoroalkyl substances encompass a broad range of over 12,000 distinct chemicals with varied molecular structures, resulting in substantial differences in their physical, chemical, and biological properties, significantly influencing their behavior and the potential substance risk. PFAS as a category is very generic, with certain chemicals considered safe for use and others deemed harmful. Hitachi Energy fully supports the risk management, including a government regulated phase-out where possible, of the subset of PFAS substances which are detected as environmental pollutants and potentially linked to negative effects on human health. Examples of such materials are PFOS, PFOA, PFHxS, PFNA, or C9-C14 PFCAs.

Hitachi Energy recognizes the need to avoid emissions of substances with known toxicological concerns to best protect human health and the environment. This goal needs to be achieved by employing a risk-based regulatory approach in a sustainable manner, ensuring product reliability and achieving critical targets such as the green energy transition. To do so, any restriction of PFAS needs to be appropriately differentiated: the group of PFAS is a large and inhomogeneous group of substances with very different physical and chemical properties, coming with vastly different levels of hazards. The human health and environmental implications of those substances are also different and depend on the nature and level of control of their use. Thus, sustainable regulation of PFAS should identify differentiated risk management measures in consideration of the risk of a specific substance in a specific use with its relevance for society.

This report outlines key materials, applications, and functional requirements which necessitate such robust materials critical for the production of non-consumer power grid equipment and technologies. Moreover, it provides details on what is currently known about direct and indirect effects on critical PFAS uses that may impact non-consumer-power grid infrastructure if a derogation does not occur, along with the socio-economic and environmental impacts in response to Minnesota PFAS regulations.

Why are PFAS relevant to the Energy Sector?

Electrical Grid Equipment, including electrical power generation, transmission, and distribution infrastructure, operate under extreme conditions (e.g., high voltage, high current, extreme temperatures, adverse weather conditions, etc). PFAS materials are used in non-consumer power grid infrastructure due to the unique properties of these materials (see below) which are crucial for the safe operation of electrical infrastructure. These characteristics have made PFAS essential in the production of modern technologies in grid infrastructure and beyond, such as solar inverters, wind turbines, and transportation.

Non-consumer Grid infrastructure utilizes PFAS which possess unique characteristics (see below) required for a diverse set of applications.

- Inertness;
- High degree of purity;
- Stable at extreme temperatures;
- Tribological performance;
    - Additionally, to maintain this performance at extreme temperatures, for high voltage switchgear;

- Non-flammable;
- Low gas permeability; and
- Electrical insulating capabilities (e.g. bushings and tap-changers in transformers equipment and high voltage circuit breakers to maintain operation stability throughout their long lifetimes).

Restriction of substances should be envisaged if the substances have been identified as harmful to human health or the environment and proven alternative offering the same guarantees of reliability is available. The chemical properties for a variety of PFAS used differ significantly from the harmful PFAS which have been identified. PFAS which have been identified as harmful, are highly mobile, amphiphilic, and water-soluble chemicals. The majority of PFAS used in our products is high molecular weight, low mobility, high stability, non-polar, non-water-soluble chemicals. For example, PTFE is frequently used for a combination of the characteristics (above) and has been shown to have a low bioaccumulation due to low bioavailability in living organisms because of high molecular weight, low water solubility, and high chemical stability, which prevents PTFE from being absorbed by living organisms[1]. C4-FN is a non-polar, low water soluble, gas which does not accumulate in water, plants, or the soil and has an average atmospheric lifetime of 30 years[2,3]. The water solubility of C4-FN is very low with a solubility of 0.000272 g/L at 25°C[4].

- **Hitachi Energy is requesting derogation for uses and sub-uses of PFAS chemicals for the non-consumer power grid equipment and technologies**

The descriptions below, backed with the technical details and references presented in this document, demonstrate why specific PFAS used in electrical power grid technologies should not be subject to PFAS restrictions, according to a general PFAS ban proposed by Minnesota's reporting rule. Removal of PFAS could cause socio economic impacts and impacts to U.S. energy supply.

- **A risk biased approach for the evaluation of PFAS**

Hitachi Energy emphasizes the importance of employing a risk-based regulatory approach to the regulation of PFAS that differentiates the substance restriction based on the substances have been identified as harmful to human health or the environment and no proven alternative offering the same guarantees of reliability is available.

- **Specific derogation for dilute mixtures of heptafluorobutyronitrile (C4-FN, CAS No. 42532-60-5) as a high voltage insulating gas**

C4-FN should not have limited use as it is not classified as toxic, does not accumulate in water, plants, or the soil and has an average atmospheric lifetime of 30 years and has a significantly lower global warming potential compared to sulfur hexafluoride gas (SF_6)[2,3]. C4-FN offers the lowest carbon footprint per life cycle assessment for high voltage switchgear through the removal of SF6, while maintaining a safe and reliable gas insulated technology maintaining the compactness of high-voltage equipment necessary for the green energy transition.

1. Introduction to PFAS Use in Hitachi Energy Products:

Hitachi Energy delivers a wide portfolio of products, system solutions, and consulting services worldwide. In the US market, HE introduces, manufactures, and services high-voltage switchgear, generator circuit breakers, power grids components, transformers, and HVDC and STATCOM installations. These installations contain Grid Automation (GA) products such as PCBAs, cables, wires, connectors, LCDs, plastic enclosures, and other typical components, as well as semiconductor equipment.

The following PFAS are used in the equipment for their unique combination of properties:

1.1. High-voltage switchgear

- Dilute mixtures of C4-FN (CAS No. 42532-60-5), as an insulating gas in high voltage applications. C4-FN based switchgear was shown and validated by third party experts to be the most sustainable solution compared to other solutions from a total life cycle point of view[5]. Alternatives do not exist for switchgear above 145 kV.
- Fluoropolymers for bearings, gliding rings and lubricants and the essential arcing nozzle made from polytetrafluoroethylene (PTFE, CAS No. 9002-84-0) used to contain and guide the hot, gaseous plasma in each circuit breaker. (See Annex for additional details)

1.2. Power grid components

- Fluoropolymers (PTFE and EFTE) in High-Voltage (HV) oil insulated voltage and current transformers, fluid insulated capacitors, surge arresters, cable accessories, water cooling systems.
- PFPE oils as a masking oil fundamental in the manufacture of HV dry film capacitors. (See Annex for additional details)

1.3. Generator Circuit-Breakers (GCB)

- Fluoropolymers for bearings, gliding rings and lubricants, the essential arcing nozzle, and a thin top layer of the arcing chamber insulator are made from polytetrafluoroethylene (PTFE, CAS No. 9002-84-0) used to contain and guide the hot, gaseous plasma in each gas circuit-breaker.
- The coolant fluid / refrigerant R-1336mzzE (CAS No. 66711-86-2) is used for heat dissipation in high current applications, thereby greatly reducing the amount of aluminum used for the conducting parts of the GCB. (See Annex for additional details)

1.4. Transformers uses

- PTFE (CAS No. 9002-84-0) is used in construction welding insulation tape, tapes in transformer bushings, fire retardant insulated wires, as well as in tooling and components of production machinery.
- FKM in gaskets enables leak-free operation of transformers based on biodegradable dielectric insulating liquids and high-temperature applications.
- ETFE (CAS No. 25038-71-5) in current transformer leads, due to its chemically compatible (mineral and ester fluids), corrosion resistance and thermal tolerance range from -50°C to 135°C.

1.5. HVDC and STATCOM converter valves use (as the heart of such installations):

- ETFE (CAS No. 25038-71-5) as cladding material in optical fibers;
- PVDF (CAS No. 24937-79-9) for cooling system pipes;
- PTFE (CAS No. 9002-84-0) used in components with high requirements on electrical insulation properties, temperature withstand.

1.6. Grid Automation and Semiconductors equipment use:

- Several studies have indicated the presence of PFAS in Semiconductor Devices, PCBAs, Cables, Wires, Connectors, LCDs, Plastic Enclosures etc . [6],[7]6
- To our best knowledge those are made from fluoropolymers to the more subtle case of articles made from non-PFAS polymers containing PFAS additives. These are typical components of grid automation products. [8]

2. The importance of PFAS in Critical equipment

Per norm, Hitachi Energy equipment must be designed with substantial robustness to operate reliably in industrial processes. This equipment is built with high safety margin and high-performance materials often defined by industry standard bodies (IEC, ISO, ANSI,etc.).

PFAS used in Hitachi Energy provide an unmatched multitude of high-performance properties simultaneously to deliver the required functionality to the components used in Electrical Grid Equipment.

In the previous sections we have announced the uses of PFAS in our equipment. However, in this section information is shared on the criticality of such equipment and PFAS contained on it.

C4 – FN (CAS No. 42532-60-5) as insulation gas

- The dilute C4-FN mixture used in SF6-free high-voltage equipment is not classified as toxic, as determined through professional toxicological and ecotoxicological assessments[3,9].
- Gas leakages are kept minimal due to constant monitoring through sensors and

  handling mistakes, and we assume all high voltage switchgear globally are using C4-FN, then C4-FN would contribute to approximately 0.0006% of global trifluoroacetic acid emissions.
- C4-FN mixtures replace the emissions of pure SF6, which has a global warming

  Utilizing C4-FN enables a 99% reduction in the global warming potential.
- C4-FN can be recycled at the end of life and reused.
- (See annex for additional details)

Poly-(perfluorpropylenoxid-*co*-perfluorformaldehyd) a type of perfluoropolyether (PFPE, CAS No. 69991-67-9)

- PFPE oils as a masking oil fundamental in the manufacture of HV dry film capacitors.
- PFPE is a group of perfluorinated polymers which has high temperature stability, low volatility, poor water solubility, and high chemical inertness (with the exception of

interaction with Lewis acids at high temperatures, which is not applicable to the use case in dry film capacitors).

- Such properties greatly reduce the ability of PFPE to interact with biological systems showing no significant persistency, bioaccumulation or toxicity (PBT)[10,11,12].
- There is no known feasible alternative to the use of PFPE oil for the manufacturing of segmented metallized film in the foreseeable future[13,14,15,16].
- Due to the lack of a known viable alternative to PFPE oil for Dry film capacitor metallized film production, the extremely long research, redevelopment and certification time and cost, and the mitigating factor that PFPE oil is used in extremely small quantities in a controlled and sealed production process in a sealed for life product.
- (See annex for additional details)

Coolant fluid / refrigerant R-1336mzzE (CAS No. 66711-86-2)

- Used for heat dissipation in high current applications, thereby greatly reducing the amount of aluminum used for the conducting parts of the GCB.
- Exempted from the regulatory definition of Volatile Organic Compounds by the United States Environmental Protection Agency (USEPA) due to low environmental risk[17].
- The use, import, and export of all cooling fluids have been approved by the Swiss Federal Office for the Environment.
- “HFO-1336mzz(E) is not regulated as a hazardous air pollutant (HAP) under title I of the CAA.
- “HFO-1336mzz(E) is not listed as a toxic chemical under section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA)[18].
- The material is sealed for life but in the rare case of a leak, the material decomposes to naturally present substances within 25-67 days[19,20].
    - A controlled recycling after decommissioning or exchange is feasible and part of our maintenance instructions.
- (See annex for additional details)

PTFE as insulation nozzle

- The behavior of the electric arc in high-voltage switchgear is controlled by a specially designed nozzle made of PTFE.
- During operation, the intense heat of the arc causes the PTFE nozzle material to sublimate, contributing to cooling the arc.
- This interaction between the nozzle material and the arc plasma is crucial for interrupting the electric current.
- The sublimating nozzle material combines with the insulating gas, creating a gaseous mixture that extinguishes the arc, allowing safe interruption.
- Of critical importance is that during the sublimation process and after cooling down, the PTFE surface retains the required insulating properties.

FKM (Fluorine Kautschuk Material) in gaskets

Transformers and their components rely on the ability of FKM gaskets to remain leak-proof given exposures to elevated temperatures and external weathering as described below:

- FKM gaskets are used in electrical equipment due to their exceptional compatibility and chemical resistance with the different dielectric fluids (mineral oil, natural esters, and synthetic esters), coupled with their ability to withstand the harsh transformer environment, meeting the operational temperature tolerances, along with ozone and UV resistance.
- The exceptional chemical and thermal resistance of FKM gaskets makes them resilient against degradation and swelling, even under high-temperature conditions.
    - This durability ensures that they maintain their sealing performance over time, safeguarding the integrity of the transformers.
    - This is critical in areas of short or long-duration overloading where gaskets must consist of nonflammable materials that can withstand temperatures up to 200ºC.
- FKM gaskets possess unique insulating fluid compatibility; this, coupled with their resistance to the environmental stresses imposed upon them by transformers, allows for a long-lasting and reliable seal against leakage.
- Overall, the content of gaskets in a transformer is less than 2 kg for a transformer that can weigh several hundreds of tons; nevertheless**,** gaskets are some of the most critical elements to avoid insulating fluid spills to the environment and unplanned maintenance stops to replace premature gasket failing.

PTFE as insulation in the welding of structural parts (welding insulation tape)

- Provides high-temperature resistance, preventing the ingress of welding material inside the transformer steel envelope.
- Prevents molten metal or welding sparks from adhering to the tape during these welding operations.
- The non-stick property allows for easy clean-up, but of greater importance, it reduces the risk of internal contamination, which is a critical aspect in the consideration of transformer reliability.
- Superior chemical resistance safeguards against corrosion from welding fluxes, and its excellent electrical insulation properties prevent electrical leakage and short circuits.
- Impressive mechanical strength and durability, making it resistant to tears, punctures, and abrasion
- Low coefficient of friction for controlled application during both manufacturing and including any necessary repairs needed during the serviceable lifetime of the transformer.
    - As example of above enhanced properties, PTFE is used as insulation material in the weld between the cover and the main tank, specifically for transformers for critical generation of energy transmission facilities, like nuclear power plants.

Bushings

- High-voltage bushings are crucial components in electrical systems, especially in transformers and circuit breakers.
- Their primary function is to allow electrical conductors to pass safely through grounded barriers, such as walls or metal enclosures, without making contact with them.

- Bushings serve as the connection between transformers and the power grid. High reliability and functional integrity of the bushings are critical to the smooth operation of a grid.
- High-voltage bushings have to be durable against environmental factors for a long time.
    - The gaskets in these bushings must chemically and thermally resist dielectric fluids from attacking the gasket while ensuring a reliable seal against external conditions (as described above on:“FKM (Fluorine Kautschuk Material) in gaskets").
- FKM and FVMQ (Fluorosilicone rubber) gaskets used in the bushings meet the requirements for resistant to UV light, ozone, and other environmental factors that could damage a gasket if fluoropolymers like FKM and FVMQ were absent.
- The weight and the quantity of FKM gaskets are minimal in comparison to the size of the bushings.
- For the above-mentioned applications, that PTFE tape is used specifically for dry-type bushings as an interface due to its hydrophobicity and chemical stability, as well as the resins are used as solid insulation.

Expulsion Fuse Links

- Expulsion fuse links are designed to protect the distribution system in the event of an internal transformer fault, secondary fault, or severe overload.
- These fuses must withstand:
    - During the manufacturing of the tubes, both ends of the fuse are soldered and capable of withstanding temperatures of up to 250°C.
    - During operation, the fuse is submerged in oil within a distribution transformer designed to remain stable at temperatures above 60°C.
    - A brief arc occurs when the fuse blows due to a large current flow. The melted metal must remain contained within the tube to prevent heated elements from damaging other components of the transformer.

PTFE and ETFE used in Current Transformer (CT) Leads

- A current transformer (CT) is a type of transformer used to measure and monitor electrical currents, it functions by reducing or multiplying alternating current (AC) while maintaining an accurate ratio between primary and secondary circuits.
- PTFE and ETFE are used as insulation CT junction block lead insulation in oil-filled (mineral and ester) transformers.
- CT leads are routed from inside a transformer connected to a CT to the outside of a transformer and the lead must be:
    - Chemically compatible with mineral oils and ester fluids with operating temperatures up to 135°C (inside transformer);
    - Resistant to corrosive environments like shores, while also having crack resistance when the outside temperatures drop to -50°C. outside transformer on the insulation of the cable.
- PFAS in CT leads effects: Power metering, power grid monitoring, energy metering and billing, overcurrent and fault protection, ground fault detection, motor and generator protection, power quality analysis, and monitoring.
- Consequently, no non-PFAS material can satisfy:

- The internal and external requirements for the insulation on a lead wire.
- The chemical resistance against fluids or the colder outside environment (there are non-PFAS materials that satisfy such criteria).
- Therefore, PFAS materials like PTFE and ETFE are currently irreplaceable as insulation material on the CT leads.

Thread sealants

- Thread sealants are materials that provide a secure and impermeable seal at threaded joints where often dielectric liquids (e.g. esters, mineral oils).
- The thread sealants provide a strong seal, ensuring the hot dielectric fluids are not discharged into the environment.
    - They protect the transformer from the ingress of air, moisture, and other external factors that could compromise its proper functioning by preventing potential issues such as oxidation, corrosion, and electrical failures.
- The PTFE-based thread sealants ensure low friction while tightening and loosening during assembly and disassembly.
    - Low friction is important for proper sealing and making sure the threaded connections can be loosened in case a repair is needed on the transformer.

In summary, PTFE-based thread sealants enhance the integrity of transformers, ensuring leak-free, efficient operation while protecting against environmental factors that could jeopardize the performance and longevity of the equipment.

PVDF pipes for valve cooling system

- PVDF pipes are used for cooling systems for main equipment, converter valve.
    - At the heart of an HVDC converter station or an STATCOM stations is the converter valve, which converts AC (alternating current) to DC (direct current) and DC to AC through high voltage power electronics.
- Operation conditions require the material for cooling system pipes to be flame retardant, withstand high temperatures and water pressure.

Semiconductors – Photolithography

- The production of high-power semiconductor wafers is done using many and highly complex sequential steps where layers are selectively added and carved from the starting material and subsequent added layers. Beside many others, photolithography is a key process in the semiconductor manufacturing process. Such technique, allows to create extremely small patterns, down to a few tens of nanometers in size, with precise control of the shape, size and placement of the images it produces. Photolithography is the process that transfers an image of the intended IC pattern (patterning) into a wafer that has been precisely coated with photosensitive chemicals (wafer substrate). During the photolithography a film of photoresist (light sensitive polymer) is applied to the substrate material. The photoresist is altered on exposure to light making it easier or harder to remove (depending on the properties of the film and the desired effect on the many different layers applied).in this manner, selected parts of the substrate material or subsequent added layers are removed (etched).

- In both etching and patterning processes, certain PFAS are used in the manufacturing process as part of the photoresist itself, acting as photoacid generators or photosensitizers, and in plasma etching, where PFAS in oxygen plasma generate reactive species that break down chemical layers and deposits, selectively removing them (see Glüge et al. (2020)[1], and references therein for further information).

Other Critical equipment:

- Bearings made from fluoropolymers or fluoropolymer composites, without additional lubrication, are able to reliably operate even after 40 years in service and long periods of idle time.
- Guiding elements made from fluoropolymers or fluoropolymer composites, lubricated or without additional lubrication, able to operate after 40 years in service and in presence of continuously elevated temperatures.
- Fluorinated lubricants or fluoropolymer-containing lubricants for highly stressed mechanical components and electrical connections to ensure mechanical endurance for 40 years while limiting thermal losses incurred due to contact wear
- Fluorinated elastomers are used to seal insulation oils used in oil-insulated capacitors or transformers, requiring chemical stability against the oils while preventing gas permeation and corrosion
- Accessories and external wiring
    - PTFE insulated wires are used to connect measuring and safety devices to the control cabinet.
    - PTFE-insulated cables are used due to the extreme outdoor conditions and their flame-retardant capabilities.

Note1: All the signals and alarms generated by measuring and safety devices are wired to a control cabinet, which has the function of protecting the transformer operation and controlling the cooling equipment. Such equipment relies on:

- Fluoropolymers (PTFE) insulated wire/cables.
- Valves or pumps contain PTFE due to its sealing, hydro and oil-phobic characteristics, and durability

3. **Commitment to Sustainability**:

As part of our commitment Hitachi Energy “Sustainability 2030” plan and targets, the company has defined its strategy, which combines innovative solutions with a diverse and inclusive company culture, to contribute to a more sustainable society – aligned with the UN’s Sustainable Development Goals (SDGs), advancing the world’s energy system to be more sustainable, flexible, and secure. Our commitments include a 25% reduction target of hazardous substances and chemicals by 2030, compared to the 2022 baseline.

Furthermore, Hitachi Energy commitment is fully considering the life cycle of our product. This is essential because our products typically have a lifespan of 30 to 40 years, and in some cases, we have equipment that has been operational for up to 60 years.

By focusing our approach to minimize the consumption of resources and maximize their use and reuse, we aim to extend product lifecycles while reducing our environmental impact. In this regard, we would like highlight:

- The materials used in our equipment and their components are selected to accommodate high electrical, mechanical, thermal loads and stresses over their long lifetimes, differing significally from consumer products.
    - We continuously research and develop new materials that offer better performance and lower environmental impact, ensuring our products remain at the forefront of technology.
- Our equipment is only accessible to trained maintenance and service personnel following well-defined operating procedures.
    - They are routinely maintained and continuously monitored by specialized professionals due to their importance in ensuring consistent and continuous access to electrical power for society.
- Hitachi Energy conducts thorough lifecycle assessments to understand and mitigate the environmental impacts of our products from production to disposal.
    - As a result, our products often meet or exceed industry standards for sustainability.
    - Offering extensive customer support and training to ensure that our products are used and maintained in the most sustainable way possible.

As a particular examples of our commitment to considering the life cycle of our products and the PFAS use, we would like to emphasize:

<u>In Transformers Equipment</u>

Hitachi Energy's eco-design efforts in materials selection are of the utmost importance in the minimization of anthropogenic environmental footprint and maximizing circularity. Thus, efforts to support material sustainability are managed accordingly, such as: direct reuse or repurposing of materials at end-of-life, incorporation of increased recycled content into the parts of new transformers, utilization of materials from biogenic sources that support carbon neutrality through natural sequestration of carbon dioxide, as well are decommissioning guidelines in place to assure safe and circular management of all materials following the end-of-life of a transformer.

The decommissioning guidelines for our products have been thoroughly evaluated by recycling partners, as well as environmental, health, and safety experts, for sustainable and safe handling of the materials following their end-of-life.

Transformers are disposed by specialized waste management certified companies, correct disposal or recycling is described clearly in all our operation manuals, and PFAs containing materials are identifiable and separable for proper incineration or recycling. Additionally, there are no consumables that generate waste in the operation of transformers other than those components with a lifetime lower than the transformer itself.

Consequentially, the handling and disposal of PFAS during maintenance or end-of-life can be controlled. Therefore, the average weight of PTFE or materials containing PFAs wasted in a

full refurbishment of a transformer is less than 0,01% while its disposal or recycling is strictly controlled

In HV Switchgear

Hitachi Energy has developed and implemented the most effective and eco-efficient way to replace sulfur hexafluoride in high-voltage gas-insulated switchgear is to replace it with a gas mixture using C4-FN. As an example, a life cycle assessment comparing different concepts for 145kV gas-insulated-switchgear has shown C4-FN to be superior to other solutions, such as vacuum/air technology (as reviewed and confirmed by the IVL Swedish Environmental Research Institute Ltd, see separate attachment).

The use of such a gas mixture has several major benefits: it allows high-voltage equipment to keep the performance ratings and margins of safety for all high-voltage levels by providing a readily scalable technical solution, while the reliability and size of the high-voltage equipment stays the same compared to today's SF6-based technology. Scalability and high reliability are important because combined, they address a large share of the equipment demand covered by SF6 technology today, in a timely manner, without compromising the availability of electricity supply. Compact size is important, because especially gas-insulated equipment is used in locations where space is very limited, e.g., in urban areas or generally where land use for the electrical equipment needs to be minimized.

In addition, the use of C4-FN based gas mixtures enables retrofit and retrofill concepts. For retrofill, SF6 is replaced in already installed high-voltage equipment with a C4-FN mixture, while the key parts of the high-voltage equipment like enclosures, conductors, and insulators stay in service.

- A pilot retrofill installation with C4-FN mixtures was executed for gas-insulated lines (GIL) in the United Kingdom.
- This technology has the potential to remove large amounts of SF6 from the grid with low on-site effort, minimal outage time, extremely low consumption of new material and therefore high availability of the power supply and low carbon footprint.

Hitachi Energy supports the recycling of PFAS materials. Fluoropolymers can be recycled through processes such as incineration for energy recovery or reused in new products[21]. C4-FN gas can be reclaimed using a dedicated service cart, which evacuates and recovers the gas from the equipment[22]. The recovered gas can then be cleaned and possibly recycled for reuse.

In generator circuit breaker

Hitachi Energy's Generator Circuit Breakers (GCBs) are designed to handle high currents, up to 50 kA in normal operation, and require efficient cooling systems to dissipate several kilowatts of heat per phase. Traditional passive cooling methods involve using large conductors to facilitate natural or forced convection, which necessitates a significant amounts of materials like aluminum, increasing both the size and environmental impact of the GCB.

To address these challenges, Hitachi Energy employs active cooling concepts, specifically a thermosiphon approach, which significantly reduces the size of the conductor and the overall physical and environmental footprint of the GCB.

The cooling path in a thermosiphon system must be electrically insulating and capable of transporting sufficient latent heat, which limits the choice of suitable fluids. The fluid must also meet other criteria such as low flammability, low toxicity, high chemical stability, and compatibility with the materials used in the system. Hitachi Energy uses less than 1 tonne globally of R-1336mzzE annually in their GCBs with assisted cooling.

4. Alternative and Challenges

Hitachi Energy has conducted a comprehensive investigation in which various materials were evaluated for their suitability in our critical equipment containing PFAS, as mentioned in the previous *Section 3* "**The importance of PFAS in Critical equipment".**

Example 1: Hitachi Energy and, specifically, High Voltage and Transformers Business Units (BU) have studied and evaluated multiple alternative materials for critical parts of our equipment. The selection process considered several criteria[23], including the following:

- **Mechanical Strength:** Evaluating the material's ability to withstand mechanical stresses and maintain its structural integrity during the operation of the circuit breaker.
- **Temperature Stability:** Assessing the material's resistance to high temperatures generated during switching operations, ensuring its stability and performance under extreme thermal conditions.
    - In specific cases, Transformers team have- also considered low-temperature resistance. Most polymers crack or perform poorly in cold environments. PFAS materials have good crack resistance in cold environments.
- **Surface and Volume Conductivity:** Examining the material's conductivity properties to minimize the formation of surface currents and prevent unintended electrical discharges.
- **Chemical Compatibility:** Considering the material's interaction with insulating gases and its ability to maintain its properties in the presence of gaseous components within the circuit breaker.
    - Specifically chemical compatibility of materials with dielectric fluids like mineral oil, natural esters, and synthetic esters.
- **Electrical Breakdown Strength:** Evaluating the material's ability to withstand high electric fields without experiencing electrical breakdown, ensuring reliable insulation performance.
- **Processability:** Considering the material's suitability for manufacturing processes, such as molding, machining, and shaping, to enable efficient and cost-effective production.

As a result and as a well studied example, for circuit breaker nozzles, a screening of ~30 different polymers and composites based on those criteria resulted in a preliminary selection of ~10 materials. These materials were then subjected to laboratory-scale experiments. **Laboratory experiments involving these materials could not identify any suitable alternatives to PTFE as a nozzle material because of the specific PTFE properties.**

Similarly, systematic investigations were conducted at the Institute for High Voltage Technology at RWTH Aachen University. Following with the same example above, extensive description of the interaction of the electric arc with different types of nozzle materials,

including thermoplastics, ceramics and composites, can be found in the relevant literature[24]. Potential candidates were examined for their impact on switching behavior. PTFE emerged as the most suitable material by a significant margin, according to the findings described[25]. Based on the established physical relationship between nozzle material and high-voltage arc, no other type of material is reasonably able to substitute fluoropolymers in this use.

Example 2: Insulating gas for high voltage switchgear

The requirements for high-voltage insulating gases are multidimensional and present a complex challenge, necessitating consideration of the following:

- Low boiling point
- Non-flammable
- Non-ozone depleting (ODP)
- Low global warming potential (GWP)
- Low toxicity
- High switching performance
- High dielectric withstand
- Good material compatibility

We investigated 74 substances as potential alternatives to the high global warming potential, industry standard, SF_6. Four examples highlighted in Figure 1 meet the technical requirements; however, two were excluded due to toxicity (red), and one was eliminated for its highly flammable (yellow)[26].

Safety and environment remain a primary criterion when evaluating alternative gases. All other data points in grey were excluded based on concerns related to health, safety, chemical stability, or technical performance. Over 20 years of research and development led to the identification of C4-FN as the most suitable candidate to replace SF_6, with respect to safety technical performance and lower carbon-footprint, specially for HV applications.

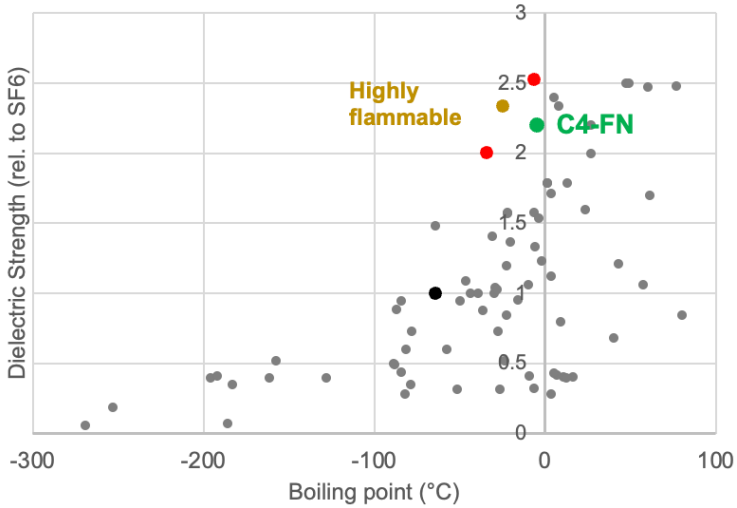

Figure 1. Evaluation of potential SF_6 replacement chemicals for gas-insulated technologies, based on two key factors: low boiling point and high dielectric strength. Four highlighted data points illustrate that materials with comparable technical properties may be deemed unsuitable due to health and safety considerations, in this case flammability or toxicity.

5. Socio-economic impacts

The energy transition and electrification of the energy system is making the total market for transformers in North America (NAM) grow. The main Hitachi Energy customers are utilities, renewables, industry, data centers, buildings and infrastructure while the end-users of electricity are the consumers in North America. The internal demand for transformers is larger than the manufacturing capacity in the region, with the main importers of transformers coming from Europe, Central, South America and Korea. All transformer manufacturers delivering into North America use similar technologies and materials for gasketing, sealing and external wiring insulation, as described herein.

Impact of unavailable spare parts and replacement components on installed equipment

Just as critical as the availability of new equipment, a lack of spare parts and replacement parts would jeopardize the large installed base in the U.S. There are more than 100’000 high-voltage circuit breakers in service across the U.S. with an average age of 20 years. Since the common lifetime of such equipment is at least 40 years but likely more if properly maintained, a truly massive replacement effort would be needed while the equipment is operating. It would be an enormous waste of material to discard fully functional equipment because simple but critical spare parts suddenly become unavailable. At the same time, and as mentioned before, it is expected that the demand for additional equipment will continue to increase. Finally, the associated costs would be staggering for consumers.

Economical risks due to increased likelihood of power outages

Following the impact on equipment availability, lifetime, and reliability, there is a significant risk for an increase in the occurrence and duration of power outages across the U.S., if PFAS derogation is not granted for the specified PFAS substances.

Even time limited outages, if unplanned, can lead to massive economic damage for the affected region[27]. Prolonged outages can lead to destabilization and unrest. In 2011, the Office of Technology Assessment of the *German Bundestag* has laid out such a scenario[28]. The assessment shows that almost all critical infrastructure heavily relies on its power supply. Should a widespread and prolonged power blackout occur, a massive disruption to supply chains, economic damage, and risks to public safety would be the consequences. The analysis concludes that such a power outage would be "*akin to a national disaster*".

More recently, the economic consequences of rising energy prices have been shown to be a major driver of rising inflation, impacting economic growth in the U.S., European economic area and globally[29].

6. Conclusions

1. There is evidence to suggest that fluoropolymers may have significantly different exposure and hazard profiles when compared with other PFAS in the class. Consequently, proposed bans must be well-targeted and it is crucial to ensure that PFAS are not grouped together and in a "one size fits all" regulatory approach must be avoided, as it would be neither scientifically accurate or appropriate.

2. Above description supports why PFAS used in non-consumer power grid equipment and technologies, known for facilitating the safe supply of electricity, should be granted derogations for specific PFAS in target applications. Removal of all PFAS, could compromise the development of applications critical to society, not only related to technological progress, but specifically in terms of public safety and infrastructure critical for the green energy transition.

3. Exempting Non-consumer power grid equipment and technologies including but not limited to semiconductors, transformers, high voltage switchgear, and grid technologies from PFAS restrictions will support the transition to a more sustainable and low carbon energy system, alignment with broader environmental goals.
    - Distinctions should be made between PFAS applications with available alternatives (e.g., certain specific coatings) and those lacking safe alternatives for the foreseeable future (as highlighted in section "Alternative and Challenges")
    - Additionally, spare parts containing PFAS for existing and foreabove mentioned equipment - projects currently under construction must be available.

4. As highlighted in the section "The importance of PFAS in Critical equipment" Hitachi Energy equipment are Essential for the Functioning of Society -Specifically:
    - C4-FN should not have limited use as it is not classified as toxic and has a significantly lower global warming potential compared to SF_6, offering the lowest life cycle carbon footprint for high voltage switchgear through the removal of SF_6, while maintaining a safe and reliable gas insulated technology maintaining the compactness of high-voltage equipment necessary for the green energy transition.

- R1336mzz(E) provides essential functionalities for generator circuit breakers, such as non-flammable, low toxicity, low global warming potential, very low conductivity, high chemical stability, and material compatibility necessary for 20 years of maintenance-free operation, efficient cooling enabling compact size which greatly impacts the overall life cycle assessment. Emissions are minimized through stringent leak control, the system is sealed for life, and proper disposal and recycling measures are outlined.

5. The potential substitution of those PFAS with alternative materials requires detailed analysis:
    - Many of the alternatives to PFAS have not been thoroughly tested for their performance in various applications. There is a need for more research to evaluate the performance of these alternatives and identify any potential drawbacks or limitations.
    - Several other aspects of alternatives have yet to be fully understood, including durability, environmental impacts, and safety. For instance, proposed alternatives should undergo similar toxicological and ecological assessments.

6. Finally, the maintenance and operation of power grid products are performed by highly trained professionals following strict safety and environmental protocols, ensuring grid reliability and efficacy.
    - With proper maintenance, the equipment and components often exceed a lifespan of 40 years, unlike consumer goods with shorter lifespans.

Annex

High voltage switchgear

- The dilute C4-FN mixture used in SF_6-free high-voltage equipment is not classified as toxic. This has been determined through professional toxicological and ecotoxicological assessments[3,4].
- Up to today's knowledge, C4-FN does not accumulate in water, plants, or the soil and has an average atmospheric lifetime of 30 years[3].
- High-voltage equipment is extremely gas-tight by design as required by international standards[30]. The C4-FN concentration ranges between 3 - 5%. Equipment tightness is assured in order to fulfill the functionality, and maintenance is done by educated professionals. Gas leakages are kept minimal due to constant monitoring through sensors to ensure functional integrity of the equipment. If gas is released in rare handling mistakes during maintenance, with the atmospheric conversion rate[31], the annual emissions of trifluoroacetic acid would be estimated at approximately 2 tons globally (Figure 2).

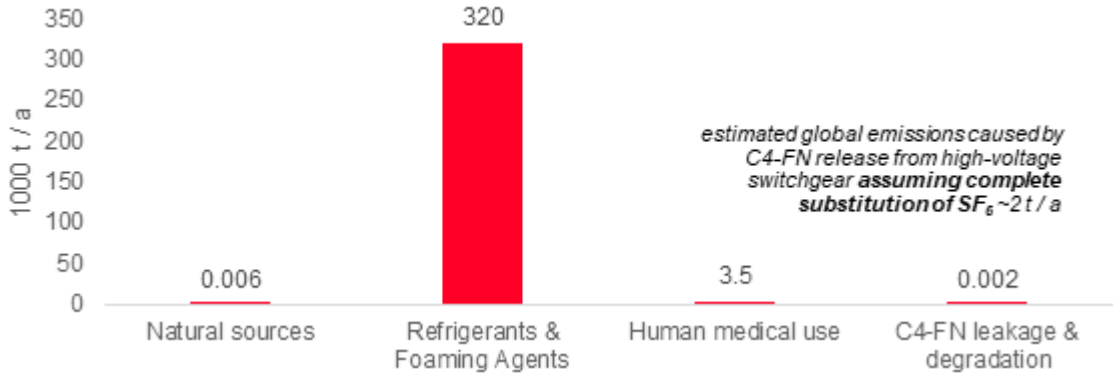

Figure **2.** *Global annual emissions of TFA from various sources*[32]

Up to today's knowledge , emitted C4-FN gas from dilute mixtures will evenly spread in the atmosphere and decompose into naturally present, geogenic trifluoroacetic acid, with a very small environmental risk ("…risks from current and future releases of TFA from the use of fluorinated precursors regulated under the Montreal Protocol to aquatic and terrestrial plants are *de minimis*.")[33].

- Note that 3 - 5% C4-FN mixtures replace the emissions of pure, 100% SF_6, with a global warming potential (GWP) 24,300 times higher than that of CO_2 and an atmospheric lifetime of 1000 years. There is a wide consensus in the industry and by regulators on the need for an SF_6 phase-out as quickly as possible. Replacing SF_6 technology with C4-FN based switchgear was shown and validated by third party experts to be the most sustainable solution compared to other proposed solutions from a total life cycle point of view[5]. Indeed, it allows to keep the compact size of the equipment drastically reducing the use of raw materials and space and, therewith, related carbon emissions. No alternative exists today that would allow the same performance (including in areas like cities where the space and size of buildings are limited) and reliability. Other alternatives are not able to allow the retrofit and retrofill of SF6 equipment.
- High-voltage equipment is only accessible to trained maintenance and service personnel following well-defined operating procedures, gas monitors are installed with all

metal-enclosed breakers and gas filled components to detect any potential gas release, hence there are limited emissions to be expected related to the C4-FN during the 40 years of service life, and C4-FN can be recycled.

High voltage dry film capacitors

PFAS material used	**Poly-(perfluorpropylenoxid-*co*-perfluorformaldehyd) a type of perfluoropolyether (PFPE)**
CAS No	69991-67-9
Products Affected	Dry type capacitors (including those used in critical major HVDC transmission links and EV inverters).
Main reasons for PFAS use	Capacitors are made of multiple elements that are tightly wound rolls of polymer film with a thin metal coating PFPE oil is used to selectively mask areas during the metal coating process, for example to create functionally needed masking longitudinally along both edges of all films with high precisionxiii. Thermal stability of the PFPE oil (-57 °C to 257 °C) is critical to the production process. Typical oil evaporation temperatures are above 200°C and chemical or thermal degradation of the oil would cause hidden defects on the film. The metallization production process is made with high film rolling speeds up to 20 m/s under tight vacuum conditions (<10-3 mbar) necessitating the use of PFPE oil that can facilitate the masking of the film at the required high production speeds and masking precision. The PFPE oil is used in a “closed-loop” method and recycled so that the total consumption is very small. The quantity of oil consumed is very low (in the range µl per meter of metallized film, or few liters per year). The enclosed nature of the process (i.e. under vacuum conditions) limits also the exposure of the oil vapors to the atmosphere. Film is kept vacuum packed until wound in the capacitor. Hitachi Energy capacitors are always encapsulated in metal or plastic cans, therefore avoiding any exposure of the deposited oil on the film to the environment during the lifetime of the product.
Availability of non-PFAS alternatives	There is no known feasible alternative to the use of perfluoro polyether (PFPE) oil for the manufacturing of segmented metallized film in the foreseeable future[13,14,15,16].
Effort to replace with non-PFAS alternatives	The PFPE oil is a central component used in the production of the metalized film of the capacitors. Based on current technologies there is no feasible alternative and it is unlikely a feasible alternative will be available in the foreseeable future. If the oil was changed, the complete production process and products would need complete revalidation and recertification, a process lasting more than 15 years. Changing this oil will impact the production rate and accuracy of the metallization

	process that is core to the functional performance of the capacitors (impacting capacitance values, failure rate, lifetime and failure modes).
Consequences of PFAS elimination to product and electric power grid	Can trigger redesign of overall capacitor units to a degree that cascades into impacts on the design of the HVDC rectifier valves and impact the ability to maintain critical spare parts to existing major (thousand megawatt) HVDC transmission links in North America and globally. Can impact EV inverters causing difficulties in the migration to electric vehicles. New products likely to be larger and more expensive with possibly shorter useful life, higher maintenance demands and lower reliability, negatively impacting on overall electric power grid availability (with the associated direct detrimental societal health, safety and economic impacts). Consequently, spare parts for existing HVDC stations and stations currently under construction would not be available. Currently there are significant ongoing investments in HVDC transmission infrastructure that would be severely impacted if spare parts are not available for the long lifetime of this critical infrastructure.
Proposal to the Draft Update for PFAS in Canada	Due to the lack of a known viable alternative to PFPE oil for Dry film capacitor metallized film production, the extremely long research, redevelopment and certification time and cost, and the mitigating factor that PFPE oil is used in extremely small quantities in a controlled and sealed production process in a sealed for life product, we request that PFPE oil used in dry film capacitors for critical infrastructure in renewable technologies, electric vehicles, and HVDC installations, not be included in the restricted in Minesota legislation, or that the use of PFPE oil in dry film capacitors be exempted or excluded.

Generator circuit breaker

What functionality the PFAS provides that is essential for this use

- Non-flammable (minimizing the risk of fire/explosion of GCB and nearby equipment)
- At present, low toxicity
- Very low conductivity in liquid phase (minimizing the risk of an electrical break down)
- Good dielectric properties
- Ideal critical point at 130°C-170°C (requirement for passive thermosiphon functionality, i.e., no pump or compressor needed)
- Boiling point at ambient pressure below 20°C
- High chemical stability (necessary for 20 years of maintenance free operation)

Good compatibility of materials (necessary for 20 years of maintenance free operation)

PFAS emissions during manufacturing (tonnages, measures employed to reduce/avoid emissions):

- 100% leak control before filling with refrigerant (helium vacuum chamber)
- Use of filling machines to minimize losses

PFAS emissions during operation (tonnages, measures employed to reduce/avoid emissions):

- All heat-pipe systems are sealed for life
- Use of metal sealed connections and corrugated metal hoses to avoid permeation losses
- The field experience is very positive; the target is no maintenance for 20 years

PFAS emissions at end of life (tonnages, measures employed to reduce/avoid emissions):

- A name plate and standardized filling valves are attached to the GCBs with all necessary information on the refrigerant used and its amount. The name plate is by standard an important element of any GCB and it is clearly legible during the whole lifetime of the GCB.
- Correct disposal or recycling is described clearly in all our operation manuals under a special section. As many of our customers are publicly owned companies or even Government agencies, we trust strongly in their will and ability to dispose and recycle correctly and in accordance with laws and regulations.

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